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TRANSACTIONS

OF THE

MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA.

THE STATE BOARD OF HEALTH.

ORGANIZED 1847—SESSION 1890.

BIRMINGHAM, APRIL 8-12, 1890.

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THOMAS A. MEANS, *Chairman.*

THE MINUTES OF THE PROCEEDINGS

OF THE

MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA.

THE MINUTES OF THE PROCEEDINGS.

SESSION OF 1890.

THE PROCEEDINGS OF THE FIRST DAY.

BIRMINGHAM, TUESDAY, APRIL 8.

The Association assembled in Sublett Hall at 10 o'clock, A. M., Tuesday, April 8, 1890.

The following Counsellors, Delegates, Health Officers, members of county societies, and visiting physicians from other States, appeared and registered :

GRAND SENIOR COUNSELLORS.

BALDRIDGE, MILTON COLUMBUS, Huntsville, Madison county.
BRYCE, PETER, Tuscaloosa, Tuscaloosa county.
COCHRAN, JEROME, Mobile, Mobile county.
DEMENT, JOHN JEFFERSON, Huntsville, Madison county.
FURNISS, JOHN PERKINS, Selma, Dallas county.
GASTON, JOHN BROWN, Montgomery, Montgomery county.
HOGAN, SAMUEL MARDIS, Union Springs, Bullock county.
HOPPING, DANIEL STILES, Letohatchie, Lowndes county.
JACKSON, ROBERT DANDRIDGE, Summerfield, Dallas county.
JACKSON, WALTER CLARKE, Montgomery, Montgomery county.
JOHNSTON, WILLIAM HENRY, Birmingham, Jefferson county.
KETCHUM, GEORGE AUGUSTUS, Mobile, Mobile county.
LUCKIE, JAMES BUCHNER, Birmingham, Jefferson county.
MCKINNON, JOHN ALEXANDER, Selma, Dallas county.
MCKITTRICK, ADAM ALEXANDER, Evergreen, Conecuh county.
MEANS, THOMAS ALEXANDER, Montgomery, Montgomery county.
MICHEL, RICHARD FRASER, Montgomery, Montgomery county.
PRINCE, FRANCIS MARION, Bessemer, Jefferson county.
SANDERS, WILLIAM HENRY, Mobile, Mobile county.
SEARS, JOHN WILLIAM, Birmingham, Jefferson county.
STARR, LUCIUS ERNEST, Camden, Wilcox county.
WEATHERLY, JOB SOBIESKI, Montgomery, Montgomery county.
WEBB, ROBERT DICKENS, Birmingham, Jefferson county.

SENIOR COUNSELLORS.

BROWN, PUGH H., Troy, Pike county.
CASON, DAVIS ELMORE, Ashville, St. Clair county.
DUBOSE, WILDS SCOTT, Columbiana, Shelby county.
FLETCHER, RICHARD MATTHEW, Madison, Madison county.
FRANKLIN, CHARLES HIGGS, Union Springs, Bullock county.
GOGGANS, JAMES ADRIAN, Alexander City, Tallapoosa county.
GOODWIN, JOSEPH ANDERSON, Jasper, Walker county.
HENDRICK, GUSTAVUS, Brundige, Pike county.
HILL, SAMUEL HENRY, Carrollton, Pickens county.
HUGGINS, JACOB, Newbern, Hale county.
JAY, ANDREW, Evergreen, Conecuh county.
JONES, CAPERS CAPEHART, East Lake, Jefferson county.
KENDRICK, JOEL CLOUD, Greenville, Butler county.
MOODY, JOSEPH, Franconia, Pickens county.
PETERSON, FRANCIS MARION, Greensboro, Hale county.
ROBERTSON, THADDEUS LINDLAY, Birmingham, Jefferson county.
SEARCY, JAMES THOMAS, Tuscaloosa, Tuscaloosa county.
SHOLL, EDWARD HENRY, Birmingham, Jefferson county.
STOVALL, ANDREW MCADAMS, Jasper, Walker county.
THETFORD, WILLIAM FLETCHER, Talladega, Talladega county.
THOMAS, JAMES GREY, Mobile, Mobile county.
TRENT, POWHATAN GREEN, Rock Mills, Randolph county.
WRIGHT, MILTON ROIL, Gadsden, Etowah county.

JUNIOR COUNSELLORS.

BALDWIN, BENJAMIN JAMES, Montgomery, Montgomery county.
HARLAN, JOHN JEFFERSON, Hackneyville, Tallapoosa county.
HUDSON, WILLIAM HENRY, LaFayette, Chambers county.
INGE, HENRY TUTWILER, Mobile, Mobile county.
KENDRICK, JOEL BEDER, Birmingham, Jefferson county.
LEGRAND, JOHN CALHOUN, Anniston, Calhoun county.
LOWRY, SAMUEL HICKMAN, Huntsville, Madison county.
NOLEN, ABNER JACKSON, New Site, Tallapoosa county.
REDDEN, ROBERT JAMES, Sulligent, Lamar county.
WHALEY, LEWIS, Birmingham, Jefferson county.
WHEELER, WILLIAM CAMP, Huntsville, Madison county.
WHELAN CHARLES, Birmingham, Jefferson county.
WILKINSON, JAMES ANTHONY, Flomaton, Escambia county.
TOOLE, BARCLAY WALLACE, Talladega, Talladega county.

DELEGATES.

Autauga County Medical Society—Samuel Parish Smith, Prattville.

Barbour County Medical Society—William Henry Robertson, Clayton.

Bibb County Medical Society—Herbert Hudson McAuley, Briarfield.

Blount County Medical Society—William Milton Cole, Blountsville; Henry Beauregard Disharoon, Oneonto.

Bullock County Medical Society—Henry Mitchell Hunter; Lewellen Sessions, Union Springs.

Butler County Medical Society—Robert Edward Smith, Greenville.

Calhoun County Medical Society—Edward Clark Anderson, Anniston; Thomas Willburn Ayers, Jacksonville.

Chambers County Medical Society—William McCurry Gay, Milltown; Charles Franklin Perry, LaFayette.

Cherokee County Medical Society—George D. W. Lawrence, Cedar Bluff.

Clarke County Medical Society—Benjamin Shields Barnes, Suggsville; Bryan Borroughs, Vashti.

Clay County Medical Society—Aaron LaFayette Harlan, Ashland; Charles Simpson Northen, Lineville.

Colbert County Medical Society—Alexander Alford Wall, Tuscumbia.

Coosa County Medical Society—Julius Jones, Rockford.

Crenshaw County Medical Society—Samuel William May, Bullock.

Covington County Medical Society—William James Head; Charles Jones, Andalusia.

Cullman County Medical Society—Marquis LaFayette Johnson; John Edward Purdon, Cullman.

Dale County Medical Society—Robert Franklin Harper; Washington LaFayette Jones, Ozark.

Dallas County Medical Society—Lemuel Lovatt Alston, Orrville; James Marion Donald, Marion Junction.

DeKalb County Medical Society—Horace Puckett McWhorter, Collinsville.

Escambia County Medical Society—Stephen Cary Henderson, Brewton.

Etowah County Medical Society—Robert Franklin McConnell, Attalla.

Fayette County Medical Society—Thomas Bailey Woods; Jonathan Shelton Hollis, Wayside.

Greene County Medical Society—Augustus Meek Duncan, West Greene.

Hale County Medical Society—James Pennington Bordon, Greensboro; Reuben Henry Duggar, Gallion.

Henry County Medical Society—Oscar Dowling, Columbia.

Jackson County Medical Society—James Rich Tarrant, Fackler.

Jefferson County Medical Society—George Summers Brown; John Calhoun Dozier, Birmingham.

Lamar County Medical Society—William Locke Morton, Vernon.

Lauderdale County Medical Society—Hugh Leonidas Ray, Oakland.

Madison County Medical Society—Charles Lanier Darwin; Christopher Americus Robinson, Huntsville.

Marengo County Medical Society—Bryan Watkins Whitfield, Demopolis; James Bryan Whitfield, McKinley.

Marshall County Medical Society—William May, Warrenton; William Levi Thomason, Guntersville.

Mobile County Medical Society—Charles LeBaron, Mobile.

Montgomery County Medical Society—Glenn Andrews; James Reid Jordan, Montgomery.

Morgan County Medical Society—David Mason Winston, Woodland Mills.

Perry County Medical Society—Grattan B. Crowe; Charles A. Wilkerson, Marion.

Pickens County Medical Society—Thomas Henry George Cook, Stone; Newton Hill, Pickensville.

Pike County Medical Society—Josephus Simon Beard, Troy; Charles McSwean, Brundige.

Randolph County Medical Society—Wilson L. Heflin, Louina.

Shelby County Medical Society—John Harford William, Columbiana.

St. Clair County Medical Society—Henry George Crump, Seddon; James Madison McLaughlin, Springville.

Sumter County Medical Society—John Calhoun Parham, Gainsville; Amos Lemuel Vaughn, Cuba Station.

Talladega County Medical Society—John Dickson, Fayettville.

Tallapoosa County Medical Society—John Milton Watkins, Camp Hill.

Tuscaloosa County Medical Society—James Louis Fant; Andrew Barry Crook Nichols, Tuscaloosa.

Walker County Medical Society—Charles Beaufort Jackson, Horse Creek; Mathew Watson Shipp, Carbon Hill.

Wilcox County Medical Society—Floyd Edward Crum, Arlington.

Winston County Medical Society—Thomas P. Deweese, Nauvoo.

Forty-eight county societies represented by seventy-two delegates. The counties of Chilton, Choctaw, Cleburne, Coffee, Conecuh, Elmore, Lee, Limestone, Lowndes and Monroe sent in their reports but failed in representation.

The counties of Baldwin, Franklin, Geneva, Marion, Russell and Washington, failed both in representation and reports.

The following Health Officers were present:

Autauga County—Samuel P. Smith, Prattville.
Barbour County—William H. Robinson, Clayton.
Blount County—William M. Cole, Blountsville.
Calhoun County—Thomas W. Ayers, Jacksonville.
Cherokee County—George D. W. Lawrence, Cedar Bluff.
Clay County—Aaron L. Harlan, Ashland.
Conecuh County—Adam A. McKittrick, Evergreen.
Coosa County—William E. Maxwell, Kelleyton.
Crenshaw County—Samuel W. May, Bullock.
Cullman County—Marquis L. Johnson, Cullman.
Dale County—Washington L. Jones, Ozark.
DeKalb County—Horace P. McWhorter, Collinsville.
Elmore County—Oscar S. Justice, Central Institute.
Escambia County—Stephen C. Henderson, Brewton.
Etowah County—Milton R. Wright, Gadsden.
Fayette County—Thomas B. Woods, Wayside.
Greene County—Thomas W. Pierce, Knoxville.
Hale County—Jacob Huggins, Newberne.
Jackson County—James R. Tarrant, Fackler.
Jefferson County—Henry N. Rosser, Birmingham.
Lamar County—Robert J. Redden, Sulligent.
Madison County—James L. Darwin, Huntsville.
Perry County—Charles A. Wilkerson, Marion.
Pike County—Josephus S. Beard, Troy.
Randolph County—Cary W. Taylor, Wedowee.
Talladega County—William F. Thetford, Talladega.
Winston County—Thomas P. Deweese, Nauvoo.

MEMBERS OF COUNTY SOCIETIES VISITING.

John C. Abernethy, John W. Baird, John W. Barclay, Robert A. Berry, George S. Brown, Samuel R. Caffee, Harden P. Cochrane, Ruffin Coleman, William D. Cooper, Benjamin G. Copeland, James T. Coulbourn, Henry G. Crump, Malvin N. Due, John D. S. Davis, William E. B. Davis, Albert G. Douglass, John C. Dozier, Charles Drennen, Charles T. Drennen, Thomas E. Dryer, William C. Forster, Jefferson D. Gibson, John S. Gillespy, John G. Griggs, Albert T. Hendley, Charles H. Jernigan, Arnold Jolly, Samuel L. Ledbetter, Louis Leichtschein, Joseph P. Martin, James H. McCarty, Robert V. Mobley, Edward W. Morris, John R. Page, Thomas D. Parke, Edward C. Pearson, Samnel Perry, James M. Pinkston, William W. Ransom, Edward P. Riggs, Henry N. Rosser, Charles R. Sexton, Benjamin B. Simms, Cunningham Wilson, Benjamin L. Wyman, Birmingham; Shelby C. Carson, John T. Chapman, John M. Curry, Elisha M. Robinson, Bessemer; James H. Finch, William W. Gamble, East Lake; George

W. Brown, Russell M. Cunningham, John F. Huey, Pratt Mines; James L. Kilbrough, Huffman.

FRATERNAL MESSENGERS.

Drs. Landon B. Edwards, of Richmond, secretary of the Medical Society of Virginia; F. B. Nimock, of Lawrence, from the Mississippi State Medical Society, and Frank Trester Smith, of Chattanooga, from the Tri-States Medical Association of Alabama, Georgia and Tennessee, presented certificates of appointment, and were accorded the privileges of the floor and debate.

SUMMARY.

Grand Senior Counsellors	23
Senior Counsellors	23
Junior Counsellors	14
Delegates	72
Health Officers	28
Members of County Societies and others visiting	55
Visitors from other States and representatives of the Press	6
Total	221

R. Fraser Michel, Montgomery; George A. Ketchum, Mobile; Job S. Weatherly, Montgomery; John J. Dement, Huntsville; Peter Bryce, Tuscaloosa; Robert D. Webb, Birmingham; John B. Gaston, Montgomery; Francis M. Peterson, Greensboro; Edward H. Sholl, Birmingham; Milton C. Baldridge, Huntsville, ex-presidents; Francis M. Prince, Bessemer; William A. Johnston, Birmingham; John W. Sears, Daniel S. Hopping, Letohatchie; Samuel M. Hogan, Union Springs; Pugh H. Brown, Troy; Lucius E. Starr, Camden; Richard M. Fletcher, Madison; Thaddeus L. Robertson, Birmingham, ex-vice-presidents, were present and occupied seats on the rostrum.

There were present of the Board of Censors and Committee of Public Health: Edward H. Sholl, Wilds S. DuBose, Jerome Cochran (senior censor); John B. Gaston; Job S. Weatherly, Benj. J. Baldwin, William H. Sanders, John J. Dement, George A. Ketchum.

The Association was called to order by the President, Charles Higgs Franklin, at 12 o'clock noon, and opened with prayer

by the Rev. Dr. L. S. Handley, of the Central Presbyterian Church.

President Franklin then introduced the Hon. James J. Banks, who, in behalf of the Mayor and citizens of Birmingham, delivered the following

ADDRESS OF WELCOME.

Mr. President, and Gentlemen of the
Medical Association of the State of Alabama:

The pleasing duty has been assigned me by our Honorable Mayor of extending to you, the welcome of the City; and I assure you that I do not use words of idle flattery when I say, never before have we had within our gates, guests more welcome than yourselves. Of all the places within the borders of our common State there are none that have so great reason to extend a warm greeting to the Medical Profession, as the one you now honor with your presence.

Not that disease and death are more familiar in our homes than in others, but because when we think of the noble Fraternity you represent our minds revert to the dark days of '73, and we think of the heroism of a Luckie, a Sears and a Taylor and a Jordan, and many another brave Doctor, who stood with Spartan courage at the post of duty. So in greeting you with the hospitality of our city, I feel that I do but tender our respect to the most heroic profession known to our civilization. Not the kind of heroism that marches with martial tread ,and streaming banners, and crashing band, but the nobler and truer kind that with softened step and whispered voice, battles at the dead hours of the night for the lives of our loved ones, and seeks to rescue them from that icy hand that makes the heart desolate and the future a dismal prospect. Not the kind of heroism that drenches the land in blood and fills it with the sorrowful faces of widows and orphans, but the grander kind that staunches the gushing wound and saves to the child, its father, and to the wife, her husband.

Gentlemen of this heroic calling, we welcome you: and while your coming may suggest to us a time when the lights burned low, and a solemn hush pervaded the household, and a white wan face lay listless upon the pillow, yet in connecting you with this sad time, we think of your untiring energy, your sleepless vigils, and the skill with which you applied your healing art. And when we look into the face, once wan and pale, now suffused with the rich coloring of health, we exclaim, "Blessed is the Doctor, because he has saved to us the joy and pride of our home."

But there is yet a broader reason why we welcome you. It is the boast of our time, that the rays of civilization are more brilliant than ever

before; that we have made such strides towards perfection, as to make all ages but the present seem dark. We feel indeed that the Universe is almost subdued to the will of man, and that humanity's commission is largely fulfilled.

The gloom of the Gothic ages have long since passed away, and intellect has gradually awakened its energies. Science has lighted up all her lamps, and at her altars are found innumerable votaries. Nature, so long veiled in mystery, exhibits herself in all her beautiful proportions to the enraptured gaze. The Chemist has long been at work in his laboratory and the Philosopher in his closet; a flood of light has burst upon the world, and things heretofore hid from the observation of men are now laid open to his view. The long and intricate chain of cause and effect is the process of exposure. Mind is most powerfully at work. Improvement meets us in all our walks. The mechanical arts are ceaselessly engaged in moulding existences into new forms, and new shapes. Time and space are now almost annihilated. Reason sits on her throne in all her supremacy, holding in subjection the complex mechanism of man, with all its emotions, passions and desires. And the moral development of the human race has been no less wonderful than the mental. Churches, Colleges, Asylums and Reformatories meet our gaze from every direction. The spirit and the true morality of the Christian Religion are better understood to-day than ever before. More active effort is being made to elevate and ennoble human character, and save it from those vices that degrade and demonize it, than was ever before witnessed in the world's history. And I assure you gentlemen, that I speak sincerely, when I say that, of all secular agencies, the Medical profession has been the most important factor in all this development and progress. Having burst the fetters that bound it to a tradition and superstition that were degrading, the profession of Medicine has long since caught the spirit of the times, and come to realize the almost absolute dependence of a sound mind and sound morals upon a sound body. No nation can hope to realize a full development of its citizens without a due observance of the well taught laws of health; no community can amass that wealth which is a necessary element in the growth of its civilization, which permits an unrestrained violation of hygienic law. No individual can hope to reach that period of life, nor a full growth of his faculties, which are necessary to mark his course as one of great usefulness, who disregards the rules of proper living. And from whom do we learn the operation and importance of these laws? and by whom have they been developed and perfected? Who is it that has brought the world to understand that it is easier to keep well, than to get well; that an ounce of prevention is worth a pound of cure? Your convention on this occasion, is an answer to these questions. You have left the quiet pleasures of your own homes and come together, not for the purpose of heralding to the world the magnificence of your achieve-

ments, but for the unselfish purpose of determining among yourselves the best methods of preserving the healthfulness of our State, and our homes.

You can now understand why it is we extend to you, all the privileges and immunities of our city. I again say in behalf of the city of Birmingham, that yours is truly a welcome presence, and when you go hence, we trust that you may not be more impressed with our material progress, than with the hospitality of our citizens.

Dr. WILLIAM HENRY JOHNSTON, president of the Jefferson County Medical Society, then welcomed the association on behalf of that society in the following language:

Mr. President, and Gentlemen of the
Medical Association of the State of Alabama:

In behalf of the Jefferson County Medical Society, I take great pleasure in extending to you a most cordial welcome to the city of Birmingham.

We are glad to see you here. We are glad to shake your hands. We are glad to have you in our midst—you, who, at your homes, are always welcomed to the domestic circles—you, who, in your daily visits, are received with smiles—you, to whom the most sacred trusts are confided—you, whose footsteps gladden the heart of the lonely watcher by the bedside of the sick—you, to whom secrets are entrusted, which, if revealed, would cause untold misery—you, who, even when weary in mind and body, never refuse the call to suffering humanity—you, who, when the deadly epidemic threatens or invades the community are the first to meet it on the threshold, and the last to turn your backs—you, whose well springs of sympathy are never exhausted, it matters not how much of sorrow and suffering you witness, whether in the cabins of the poor or the mansions of the rich—you, whose deeds of charity are measured by the length of your lives, and many of you live to be old in spite of your toil by day and by night, in rain and sunshine, in winter and summer—you, who are honored, trusted and beloved in your homes. Imbued with these characteristics, how could we do otherwise than extend to you a heartfelt welcome. Many of you have doubtless made sacrifices to be present at this meeting, and now and then, the worrying thought comes, Did I do right to leave such a one? Console yourselves with the thought that your presence here may be the means of enabling you in the future to more speedily and more pleasantly relieve others, and then, too, remember it is your sacred duty to leave no stone unturned to add to your knowledge for the benefit of those who have entrusted their lives and the lives of their families to your keeping. Your presence here to-day is in the

line of that duty. The Doctor, too, is no exception to the universal law that rest, now and then, is absolutely essential in order that mind and body may do its best work.

We earnestly hope that your deliberations and interchange of thoughts and experiences may redound not only to your personal benefit, and that of your immediate patients, but also to that of the communities at large which you represent; and we sincerely trust that this temporary laying aside of your responsibilities may be the means of refreshing and reinvigorating you, and that after this short respite you may go back to your homes with renewed energy and zeal for your work.

Again, sir, permit me to extend to you, and to each individual member of this association, a hearty welcome to Birmingham.

THE ANNUAL MESSAGE OF THE PRESIDENT,

CHARLES HIGGS FRANKLIN, M. D., UNION SPRINGS,

Senior Counsellor of the Medical Association of the State of Alabama.

Gentlemen of the Medical Association
of the State of Alabama

I believe I can not better express the pleasure I am sure we all feel, in being again permitted to meet in Birmingham, than to consider for a few minutes the marvelous growth this truly wonderful city has made since our first meeting here in 1877. Those of you who were present with us at that session will recall a condition of things strangely in contrast with what we behold here to-day. Then the city had hardly more than 2,000 population. It had only received its charter from the legislature in 1871, and had had several serious drawbacks to its progress.

In 1873, the second summer of its life, there occurred a visitation of cholera, which, coupled with the general financial panic of September of that year, came near dissipating all the fond hopes of a great city that had been entertained by its founders.

These majestic mountains were full of undeveloped wealth, but they were mute.

There were no furnaces, no rolling mills, no extensive foundries. There was but one bank with the modest capital of $50,000.

Now, the city, with its legitimate suburbs, has a population of rather more than 50,000. There are twenty two iron furnaces in, and within easy reach of the city, four rolling mills with more than a dozen extensive foundries and machine shops. She has more than two and a half millions of capital stock in her ten incorporated banks.

Nor have the sanitary surroundings of the city been neglected. Her present excellent system of water works will be supplemented in the near future with another even more elaborate, and full twenty miles of Waring's system of surface and subsoil drainage is employed. Surely, something of the magic of Aladdin's lamp lies hidden away in some grotto of her surrounding mountains of iron.

Let us take hope and even receive inspiration from the energies that we see manifested in every industry here, and transfer them, if possible, to our homes and to the interests of our profession.

Medicine has, in all ages of the world, kept pace with the other sciences. Her great men have been equal in number, scientific attainment and usefulness with those of other professions. Nor have the doctors of Alabama manifested any tendency to lag behind. On the contrary, we have many proofs of a progress, somewhat commensurate with the material development here and elsewhere in the State.

Taking for comparison the period of 1877, when we first met in this city, we find the Association just beginning to take its first confident steps towards the thorough organization of the profession of the State. The session was a memorable one in many respects. The doctors of the State were beginning to feel the necessity of organization and closer professional relationship.

The whole State was awakening from the apathy that supervened upon the scenes and conflicts of a few years before, and the forces everywhere that had lain dormant so long began to reassert themselves through energies of thought and action that have had no parallel in the history of our past.

But the work before us was a grave one, the plans and details of which, had not been undertaken by any other State. It will be remembered how timorous we were, and with what diffidence we approached the task, but there was one brave spirit among us who seemed born to lead, whose great mind conceived the plan and whose indomitable energy was ever intent upon its execution. That spirit was Jerome Cochran.

The successful self-made man looks back with pleasure to the days of his small beginning, and so it is not without sentiments of pride that we review the earlier part of our history.

At the session to which we refer, there were only eight organized county societies represented. These were Wilcox, Hale, Sumter, Bullock, Lowndes, Dallas, Mobile and Montgomery. There were, however, applications for and charters granted at this session to eleven additional counties, making in all, nineteen represented.

The report of the Board of Censors, too, evinces a feeling of modesty and yet of hope, quite in accord with the general surroundings.

They say, "We think we are not wrong in the assertion that we have made real and important progress, although the evidences of it may not be of such character as to attract very greatly the attention of the general public or even of the medical profession itself."

But this following soon began to take the shape of greater confidence. It was during the early part of this year that the Act to regulate the practice of medicine was passed by the General Assembly. Though there had and have been other laws enacted, contributing to the furtherance of the objects of the Association, yet the far-reaching and distinctive effect of this one seemed to supply, at the time, the greatest need of the profession, and there speedily sprung into active operation an interest that continuously gained force until now, we may claim with tolerable certainty, an organization of our profession hardly excelled by any State in all this great country. It is known to all of you that our Supreme Court has decided that this law is defective, not to a degree, perhaps, that will render it inoperative, but in a measure to impair its supremacy and greatest usefulness. It is our law and an essential part of our organization. Its operation has been beneficial alike to the public and the profession. Very much, if not the major part, of the advancement and elevation of the profession in our State has been due to its influence, and, it should be the special pride and ambition of our Association to have it perfected, if possible, by our next legislature.

The successes attained are the result of patient industry and the close adherence to our plan of organization, which, if only we continue faithful to it, will prove sufficient for all the objects desired.

There are many of you present to-day who have shared the efforts and been with us through all the long years, whose earnest courage and devotion have been attested at every opportunity for usefulness, and who well deserve the name of "the Old Guard." But of our counsellors who have taken part with us so long there are three who are not present. Death has claimed them. Since our last meeting Drs. Augustus Jordan Reese, of Mobile; James Myers Godfrey, of Sumterville, and John Patrick Mushat, of Hayneville, have died. Drs. Reese and Godfrey were Grand Senior Counsellors, having been connected with the Association since its reorganization at Tuscaloosa in 1873. Dr. Mushat's election dates from 1881. All of them were faithful to duty. We shall sadly miss them from our councils.

WORK OF THE ASSOCIATION.

Within the time prescribed by the constitution for the appointment of regular reporters, twelve gentlemen consented to prepare papers. The titles were left largely to the selection of the reporters themselves—a course not quite in accord with the constitution which prescribes that "the subjects assigned the regular reporters should stand in some definite relation to the State of Alabama." It is clear that the method contemplated in the context of the rules, is that the president shall select both the subjects and the reporters. There are exceptions given, as in general reports on recent advances in special departments of medicine or in our knowledge of special diseases. The subjects selected, however, cover a tolerably wide and useful range, but with, probably, too great tendency to surgery, which is in some degree pardonable, we hope, since the trend of medical thought, stimulated, probably, by the recent extraordinary advances in abdominal surgery, takes largely this direction.

Under the rules that govern the Omnibus Discussion, the president has no special prerogative than to submit the papers, when read, to the Association for discussion, but following the precedent set by President Baldridge, some effort has been made to secure a sufficient number and variety of papers to occupy fully the third day of our session with interesting and profitable subjects.

The number of regular reporters as well as volunteer papers is somewhat in excess of what we have heretofore had, the impelling motive for increasing them, being a little adverse criticism as to our usual number of scientific and medical papers. The authors and titles of all the papers were published in the Medical and Surgical Age. This course was advised because it was thought that by thus giving notice some time in advance we should have freer discussion and greater benefit from them.

About the middle of January it began to be urged by several gentlemen, eminent in the profession of our State, that the subject of contract practice, especially in the large railroad and manufacturing districts, was assuming such proportions as to render it important that a committee be appointed to investigate the matter in all its bearings and report at this meeting of the Association.

I, accordingly, obtained the consent of the following gentlemen to serve on the committee, namely: Drs. P. Bryce, J. B. Gaston, M. C. Baldridge, Charles Whelan and J. C. LeGrand. My information is that their report is ready and will be submitted at this session.

The subject is one of great importance, and I trust you may reach a wise decision in regard to it. Whatever may be your conclusion, let us hope that the entire profession will acquiesce in it. We can not afford to be divided upon a subject of such magnitude.

I have during the year prepared, and issued generally, two circular letters. The first one, dated Nov. 1, was addressed to the presidents of the county societies, with the hope of securing, through them, greater efficiency of work in their respective

societies and to ascertain as nearly as possible the status of each county society in order that I might by special correspondence aid as much as possible in the removal of obstructions to their progress.

The responses were not so numerous as I had hoped for, though quite a number did favor me with replies, most of which I subsequently forwarded to the State vice-presidents, that they might, too, learn through this source, in some degree, the nature of the work before them.

I also sought through this circular to aid in the enlargement of the duties of the county vice-presidents in relation to their societies somewhat commensurate with the relations of the State vice-presidents to the Association. The hope was that we should thus secure the addition of the sixty-six county vice-presidents as active workers for their county societies. I am not sure that much was effected in this direction, though its accomplishment appears to me to be very desirable.

The second circular, issued March 15th, was addressed to the counsellors and members of the Association. Its chief object was to enlist such interest as to secure representation by delegates from as many county societies as possible to the meeting of the Association.

The interests of the societies and those of the Association are so interwoven that the welfare of each is largely dependent upon the other. Indeed, the plan of our organization is such that the efficiency of our county societies must be the larger factor of the two in the permanency of our success.

It is gratifying to be able to report that the societies of almost all the counties in the State are making commendable progress in organization and discipline. They are doing more efficient work, too, in every way.

Every county in the State maintains its organization, and many of them have made, during the year, decided increase in their membership.

But as gratifying as our progress has been, especially as viewed in contrast with the conditions that existed in 1877, there remains very much to be done yet. A review of the

Transactions of the previous year shows that in the 66 counties of the State we have 1,580 registered physicians. Of these 954 are members and 626, or nearly 40 per cent. of the whole number, are not members of their county societies.

This disparity is too great, and will, I am sure, continue a menace to our usefulness until it is remedied. We should secure the membership of every reputable physician possible, and even if he is not in a very strict sense reputable, still if there is no just charge of unprofessional conduct, legally or ethically, against him, he should be invited to join his county society. Our county societies should make it a matter of pride to vie with each other as to which can most nearly absorb into its membership all the doctors within its jurisdiction.

There are very few doctors, who, if properly approached, can not be induced to join their societies. Some of them stay out for reasons that appear too insignificant for respectful consideration, but those who are in and who have the good of the profession at heart can afford to be generous—can afford to study and adopt such measures as shall induce a refractory or erring brother to return.

This is the kind of missionary spirit that wins and is so like that of the Master, that it is twice blessed—it blesses him that gives and him that receives. There are a few doctors, it may be, who can not be induced to join their county societies, but a properly directed effort, even with them, would not be entirely devoid of benefit, in that that it would tend to disarm them of opposition.

If all the doctors that are available were induced to join their societies and all were properly disciplined—such a discipline as would naturally grow out of a complete organization—it is easy to see that we should indeed be powerful as an army with banners.

OBJECTS OF THE ASSOCIATION.

In the hurry and activity that usually attend us in the rounds of our daily duties we should not forget the objects of our Association. They are set forth in section 11 of our con-

stitution, and are of such importance as to merit repetition. I fear that we do not study our fundamental laws as thoroughly as we should. I am sure that we would more rarely go wrong if we understood them to such a degree as to make them familiar as household words. They are as follows: "To encourage a high standard of medical education and regulate the qualifications of practitioners of medicine in the State. To promote professional brotherhood and encourage a high standard of medical ethics. To combine the influence of all the medical men in the State so as to secure by legislative enactments their own legitimate rights and privileges and the protection of the people against all medical ignorance and dishonesty. To encourage the study of medical botany, medical topography and medical climatology of the State. To secure careful and reliable accounts of all the endemic and epidemic diseases of the State. In a word, to watch over and protect, encourage and aggrandize all the interests of the medical profession of the State."

This section of our constitution is so comprehensive as hardly to leave anything unsaid that would be of avail in elevating the profession of the State to that high plane to which it is its privilege to aspire. It marks out our needs as clearly as the means it suggests for their accomplishment, and it remains only that we shall so co-ordinate our energies and direct our movements in harmony with the objects before us to attain all the benefits contemplated in them. Here, again, I invoke the agency of the county societies. If it should seem that too much is imposed on them, let it be remembered that the honor attaches to those who do the work.

These lessons have already been taught many times. Our Censors and Counsellors have labored for years to impress them, but as great truths rather gain force by repetition, I venture to urge them again to vindicate their propriety and usefulness. It is well for us to regard each county society, as in some respects, an epitome of the State Association. The parallelism is beautiful, and, if studied with this idea in view, simplifies the relations between them.

The State Medical Association of Alabama is making for itself a history that will be enduring and of which the profession of the State may be justly proud. Its transactions for more than twenty years contain a fund of information, both historic and scientific, that is of great value to the present generation of doctors, and I am sure you will transmit it, without a sense of regret to the generation to come.

Now, just what the Association is doing in this respect may be done also by every society in the State. Every society should preserve its transactions, including messages, reports, scientific, medical and biographical papers; have them written on uniform paper before receiving them as contributions; have them bound in creditable style, and let each year's proceedings add a link to its chain of history.

It would even add to its interest to keep a book for the portraits of its members, and, possibly, one also for the dead. This feature has been introduced by several of the counties and found to work so happily that it is to be hoped that it will be generally adopted. Now, these may appear as matters of too small detail, but careful attention to them will go far towards establishing a society upon a permanent basis. The Alabama Medical College, the Hospital for the Insane, and the Medical and Surgical Age should be fostered in every way possible by our county societies. Much has been said heretofore of their claims upon us. They were instituted largely by the profession. They are ours in some sense of the word and we should bear them in mind so as to let no opportunity escape us to enlarge their usefulness. There are two other enterprises yet in their formative stage that it is our duty to foster. I refer to the building for the Library and Museum of the Association, and the home for Superannuated Physicians and the Widows and Orphans of Physicians. These appeal respectively to our pride and the more tender and charitable parts of our nature. They are in the hands of able committees, and I feel that we should coôperate with them to a degree to secure their consummation.

There are many other duties of minor character for the

county societies to perform, which we can hardly refer to here. They are all systematically set forth in the Book of the Rules, and it is hoped that all our members will possess themselves of a copy of this little volume. It gives all the plans of the Association in detail and full rules for the guidance of the county societies, besides much other information of sanitary and ethical character that seems to me to be indispensable to our doctors.

Of the duties of the county societies there remains yet the most important one to refer to, namely:

THE COLLECTION OF VITAL STATISTICS.

We are informed by our State Health Officer that improvement in almost every part of the State has been made during the year in this department of our public health system, and this view of it accords with the best information I have been able to obtain from other sources. I believe that with unremitting efforts—such as have been displayed in many parts of the State for the past two or three years, that we shall make a satisfactory success of this very important work.

There are those, to be sure, who think our method impracticable. They regard it as too complex and too much work required of the assistant health officers without pay. A few think that the State is the beneficiary of the work to such a degree that it should incur the entire expense, somewhat after the plans for a long time employed in France, Austria and some other countries in Europe, where the registration is made by an official for the purpose, in the pay of the State. In case of a death a permit from the registrar must be obtained before legal burial can take place, and in case of a birth the report is to be made within a specified time.

Ours, known, I believe, as the American plan, is probably all we can obtain, at least for some time, or until our people, generally, are educated to such an appreciation of the importance of vital statistics as to demand, through our legislature, laws that shall enable us to pursue some more practical way. Notwithstanding the progress already made, our reports are,

in the main, far from absolute correctness, still, they are, in many of the counties, and nearly all of our cities and towns, sufficiently so to be of great practical usefulness.

There have been more difficulties in their collection, in the past than will likely occur in the future. In the earlier part of its history our people did not appreciate the importance of the work. Many of them felt that it was wholly unnecessary, and this opinion was even shared by some of our doctors. Moreover, the tenth census of many parts of the country, was so defective as not to give a reliable basis of population upon which to make the calculation. In many counties the population of the different beats was not given separately, and many other discouraging circumstances that will, we hope, be obviated or simplified by the eleventh census. As this is the year for taking the census we ought as physicians, as well as from motives of patriotism, contribute in every possible way to its correctness.

SANITARY DRAINAGE.

The gradually increased healthfulness and lessened mortality of England for the past twenty-five years, according to Mr. Edwin Chadwick, their oldest and one of their best sanitarians, has been due more to their better sanitary drainage and its legitimate accompaniments than to all other factors together. It has been stated than in their population of about thirty millions, that it is shown by their statistics, for the period mentioned, that there is now a saving above the period at which the estimate began, of a hundred thousand lives a year. Nor is this the only saving, for in an economic point of view, assuming that there are about twenty cases of sickness to each death, there would in this estimate be a saving of two millions cases of sickness each year.

The average physician has not hitherto attached so much importance to the twenty cases of sickness as he has to the single case of death, but Dr. Billings, in his recent Cartwright lectures, draws attention to the sickness as being rather the more important factor of the two.

This, too, is the view taken by the political economist, who, in the future, will assert himself more and more as our statistical information increases.

Again, in regard to our climate, it is believed by archæologists that successive races peopled this continent and perished before the American Indian came here. This destruction of races has been thought to be the result of climatic influences, and the opinion has been expressed that were it not for the influx of the more hardy Europeans and the mixing of their blood with ours, that our nation of people would also probably deteriorate from the samebaleful climatic influences. Certain diseases, mostly of a nervous character, are said to be peculiar to America, and even among ourselves the opinion is entertained that several of our diseases present varying symptoms, probably, on account of varying climatic influences, manifested in localities not very remote from each other. The influence of meteorological conditions upon climate and the part that climate plays in the production of our infectious or zymotic diseases, are probably held in relationship in some way by varying degrees of what has been termed the water-level in the soil.

Now, it is this water-level that sanitary drainage has most to do with, and the time has probably come when we should regard its disturbance as the fruitful source of all our micro-organisms and the diseases that are consequent upon them. The surroundings that are most suited to a human being are regarded as least suited to his microscopic foes, and it was for a long time generally thought that most of these conditions were to be found in pure air and pure water, but valuable as these are, we should now add a third, and the most valuable of the three, namely—*a pure soil.*

The literature of our Association has much, in a general way, bearing on this subject. Nearly all our Presidents, since our reorganization, have devoted more or less attention to sanitation, and in our Transactions of 1880, there is a most excellent paper on "Drainage and Under-drainage in their Sanitary and Economic Aspects," by Dr. S. D. Seelye, of Montgomery.

This last paper embraces very much, especially in regard to methods, that might be converted to practical use, and I refer to it thus particularly because I hope the younger members of the Association, who have come in since it was published, will avail themselves of the information it contains.

We need to have our knowledge converted to practical use. Without such application it cannot be said to be worth anything. Hitherto but little special effort has been made to induce our county societies to engage in such work. They have been engaged in other and more necessary things as prerequisite to such practical work, but now that they are becoming well organized and disciplined it seems to me that they might well begin, especially in the more populous cities and towns, to enlarge their usefulness in this direction.

Closely allied to Sanitary Drainage, in its bearings upon the public health is,

METEOROLOGY.

The importance of the study of this subject becomes more manifest the more we observe its relations to climate and climatic diseases.

As it is the prerogative of physicians to understand and avail themselves of all the contributions that may be drawn from physical science, considered in its broadest sense, it seems to me that our county societies, through their county boards of health, should undertake to preserve a record of the meteorological conditions and make them a part of their statistical reports.

The methods by which this may be done are indicated so admirably, and expressed in detail so fully in a letter on the subject from Prof. Mell, of the Alabama Polytechnic Institute, at Auburn, Alabama, that I beg to submit it entire:

ALABAMA POLYTECHNIC INSTITUTE, A. & M. COLLEGE,
AUBURN, ALA., March 13, 1890.

DR. C. H. FRANKLIN,
UNION SPRINGS, ALA.:

Dear Sir—In reply to your letter of the 1st instant, I will state that it will give me great pleasure to comply with your request, and below I send all the information in my power.

The changes of the weather have such great influence over the development of disease in its various forms, it is quite necessary for our State Medical Board to give some attention to this important science; and I am very much gratified to learn from your letter that you will urge upon the board the proper consideration of this question.

I have given the subject of Meteorology a close study for more than fifteen years, and I have long since arrived at the conclusion that every corporation, whether its object is to develop the natural resources of a country, or its agricultural interests, or looks to commercial preferment, or whose object is to take care of the health of the people, must consider as one of its most important factors or problems, the climate of the country and the changes of the weather. This fact has been well recognized by the State Medical Boards of Tennessee and Michigan. From the annual report of the latter State, made in 1885, I make the following extracts that may be of interest to you: "Besides those important questions, relating to the most common meterological conditions, there are other questions which mankind ought to be able to answer, such as: Are neuralgic pains experienced before a storm? What are their relations to atmospheric electricity and to barometric pressure? Is ozone an active agent in promoting health or in causing disease, or is it only concomitant with other conditions that cause disease? Is a high barometer followed by a high death rate from consumption? Is a high altitude preventive of consumption? What are the effects of the electrical conditions of the atmosphere, of ozone and of moisture on the prevalence of yellow fever? Is it true, as alleged, that cholera thrives best in a very dry climate, while yellow fever requires a moist atmosphere, and that for these reasons these diseases never coexist. Why does yellow fever disappear with a frost? Are exhalations from the earth the direct cause of malarial or intermittent fever or only a condition having no causative relation,—the damp soil affording a less equable day and night temperature? What relations do barometric fluctuations bear to intermittent fever? Why do the great plagues follow in the footsteps of a drought? Does dysentery disappear with heavy rains? If so, why? Why is typhoid fever concomitant with low water in wells? Why does cholera, as shown from statistics taken from a long series of years, reach its maximum in periods following those in which there is little rainfall, and sinks to its minimum after heavy rains? What is the effect of the ground air on the prevalence of cholera and typhoid fever, or has it no effect whatever? What diseases are consequent upon meteorological conditions? What are those conditions?"

Many other interesting questions might be presented bearing upon this subject, and others will be rapidly formulated as soon as systematic observations of weather changes are taken in connection with medical statistics.

In the plan you propose I will be glad to co-operate with you to the extent of the State weather service now established in Alabama. My desire from the start, five years since, has been to organize a station in each county of the State, and equip it with all the necessary standard instruments. This work has been quite difficult because of the lack of funds at my disposal. I have given my time without compensation, and so have the observers who have co-operated with me throughout the State. The chief signal officer could not furnish the needed funds because the law under which he was serving would not permit him. It was not, therefore, until a year ago that I succeeded in securing *as a loan*, a certain set of standard instruments from the chief signal officer for the use of the stations in Alabama. As soon as these instruments were available I sent them to the following stations:

Luverne, Crenshaw county, W. J. Fundaburk, observer.
Wiggins, Covington county, M. D. Jones, observer.
Butler, Choctaw county, B. F. Gilder, observer.
Mt. Willing, Lowndes county, W. M. Garrett, observer.
Bermuda, Monroe county, Wm. Fowler, observer.
Citronelle, Mobile county, Dr. J. G. Michael, observer.
Valley Head, DeKalb county, Dr. E. P. Nicholson, observer.
Ashland, Clay county, M. N. Manning, observer.
Uniontown, Perry county, W. H. Newman, observer.
Auburn, Lee county, P. H. Mell, observer.
Vernon, Lamar county, J. S. McEachin, observer.
Carrollton, Pickens county, Col. M. L. Stansel, observer.
Union Springs, Bullock county, R. J. Grady, observer.
Double Springs, Winston county, A. M. Weiler, observer.
Gadsden, Etowah county, Prof. D. P. Goodhue, observer.
Guntersville, Marshall county, A. J. Baker, observer.
Livingston, Sumter county, Capt. J. W. A. Wright, observer.
Elkmont, Limestone county, D. J. Moore, observer.
Centre, Cherokee county, Thos. Bradford, observer.
Fayette, Fayette county, Daniel Collier, observer.
Columbiana, Shelby county, W. D. Lovett, observer.
Jasper, Walker county, Howard Lamar, observer.
Anniston, Calhoun county, E. E. Elam, observer.
Mobile, Mobile county, Sergeant Signal Corps, observer.
Montgomery, Montgomery county, Sergeant Signal Corps, observer.
Tuscaloosa, Tuscaloosa county, J. C. Perkins, observer.

These stations are supplied with the following standard instruments:

1 Maximum thermometer.
I Minimum thermometer.
1 Exposed thermometer.
I Rain gauge and measuring sticks.

Besides these stations there are stations located at the following

places that are now supplied with an ordinary thermometer, and rain-gauge. These points will be furnished with instruments as soon as they are available.

Tuscumbia, Colbert county, Col. L. B. Thornton, observer.

Florence, Lauderdale county, Prof. C. W. Ashcraft, observer.

Greensboro, Hale county, M. H. Yerby, observer.

At the following stations I have other instruments, viz:

Auburn—Solor radiator, terrestial radiator, hygrometer, anemometer, wind vane, 39 soil thermometers, ranging in lengths from 1 to 96 inches, barometer.

Uniontown—Solor radiator, terrestial radiator, hygrometer, anemometer, wind vane, 30 soil thermometers, 1 to 96 inches, barometer.

Livingston—Barometer, hygrometer.

Montgomery and Mobile—Hygrometers and barometers.

The necessary instruments for a well organized station, such as you desire, are:

1 Maximum thermometer, 1 Minimum thermometer,	$9.00
1 Exposed thermometer	2.50
1 Terrestial radiator	3.50
1 Solar radiator	8.00
1 Rain guage	2 75—$25.75

The terrestial thermometer is used to determine the condition of the air within six inches of the soil at night, and the solor radiator to determine the maximum temperature of the sun's direct rays. They are not absolutely necessary, but the others are required to do the work well. If I can give you any further assistance please write me, and I suppose I can aid you in establishing the stations, when the board concludes to adopt your suggestions. And I think I can get the use of the government stationery, frank, &c., for the benefit of the stations, just as I am now supplying the stations under my charge.

Yours very truly,

P. H. Mell,
Director Ala. Weather Service.

It should be noted that some of the opinions, expressed in their report five years ago by the Michigan Board of Health, would hardly be entertained by that body to-day, so advanced is our knowledge in bacteriology, but the method of enquiry indicates very happily the course to be pursued in meteorological investigations by our health officials.

Our constitution specifies that the president shall be elected for one year, and although it does not declare him ineligible, yet the custom of the Association has been not to re-elect to a

second term. So long has this rule been observed that it has become what may be termed an unwritten law.

The subject has been discussed tolerably exhaustively several times and notably by the Board of Censors in their report of 1888. Most medical and scientific bodies, to be sure, elect their presidents for but one year, but ours is something more than medical and scientific. It is also, in some respects, a legislative body and requires that kind of efficiency for the administration of its functions, that comes largely of experience. My experience as president convinces me that it would be better, as a rule, to re-elect for at least a second term.

I therefore recommend that some action be taken, for the future, whereby it shall be expressed as the sense of this body that the president shall be eligible for a second term.

Finally, gentlemen, the work before us is a large one. The more we advance, the greater, probably, are our obligations increased until we shall attain our objects as expressed in the section of our constitution, read to you to-day.

If there was a necessity for a more thorough organization of our profession in 1873 for the cultivation of medical science and professional brotherhood in our State, certainly the obligation is not less now to enlarge and improve the usefulness of that organization.

So it is that our obligations seem never to cease. Sacrifices are necessary to great achievements. They are the basis of our Christian Religion and even of human prosperity. They are also necessary to the discharge of our obligations to our profession.

The talents of our members are versatile enough to embrace all the subjects pertaining to all the different departments of medicine, considered both as a science and as an art. To our young men, guided, as we hope they will be, by the counsels of their elders, and illumined by the light of advanced scientific thought, and with all the approved appliances of modern art, we look for a thorough and enthusiastic investigation of medical science.

THE ANNUAL REPORT OF THE SENIOR VICE-PRESIDENT,

BY BENJAMIN FRANKLIN CROSS, M. D.,

Grand Senior Counsellor of the Medical Association of the State of Alabama.

In submitting my annual report as Senior Vice-President of the Medical Association of the State of Alabama, I have endeavored to carry out in the main the same line of investigation as in my report of last year—viz: to investigate the status and working condition of the various county societies in the northern district. To this end I placed myself in correspondence with the vice-presidents of all the societies in my division; the principal object being to encourage them in their work, increasing the interest in their meetings, inquiring as to the efficiency of their health officers in the collection of vital statistics and all other work pertaining to the several societies. As I did not meet with much encouragement, receiving but few answers to my inquiries, thereby failing to some extent in acquiring the desired information, I then placed myself in correspondence with the presidents, health officers, and other members of the societies, which proved to be more fruitful of good results, and from the information collected from these sources I am enabled to summarize the following, which I think is correct. Reports from twenty-four county societies have been heard from, the majority of which are in good working condition and making earnest efforts to improve their work on the various lines of duty, in compliance with the requirements of the State Association, and by a careful investigation of these reports, and a comparison with those of last year, I find much that is encouraging.

Cherokee county society, during the past year, has done better than usual. There seems to be more interest taken by

the members than heretofore. The society has met regularly during the year, with an increase of attendance. The health officer has been efficient in the matter of collecting vital statistics and making his annual report. His salary is one hundred and fifty dollars. The membership numbers about fifteen. There has been lttle attention paid to public sanitation. Upon the whole, Cherokee is in a more prosperous condition than ever.

Bibb county society is still in a lukewarm condition, with a membership of eight. There is but little interest manifested. Do not hold regular meetings. The president is in feeble health and lives some distance from the county site. The health officer is doing the best he can, and what he does is not appreciated, as he has not been paid any salary. In this he deserves great credit in trying to do his duty in the way of collecting vital statistics. There is very little attention paid in the matter of public sanitation.

Blount county society, with a membership of about fifteen, is much in the same condition as in the previous year. The society tries to hold regular monthly meetings, but half of the members do not attend, and some never, whose names will be dropped from the roll. The health officer is doing reasonably fair on a poor salary, and but little attention is paid to sanitation. Blount county society is about holding its own but not advancing.

I am sorry to say the working condition of Colbert county is very poor. The attendance in the meetings is not equal to last year. The health officer has done his duty as far as he could, with the help he has had. There seems to be a general apathy on the part of the society.

Cullman county society is in a better working condition than it has ever been The membership is about thirteen, which is quite an increase. There seems to be considerable interest manifested by the members generally; they have monthly meetings with a good attendance. The health officer is doing his work well under the circumstances, and deserves much credit for it, as he is not paid any salary for his services. By the aid

of their efficient president and energy of the health officer, the outlook of Cullman society is encouraging.

The medical society in Etowah county is in a respectable condition, with a membership of fifteen, which meets regularly and has good attendance. The health officer is efficient in the matter of collecting vital statistics, and is paid a salary of two hundred and twenty five-dollars.

Coosa county society seems to be in a more healthy and prosperous condition. It has a membership of thirteen—an increase over last year. The working condition is better than it has ever been, and with more interest. The members have been punctual in attendance upon their meetings and trying to bring the society into the first ranks, and compare with many in the State. Have had six regular meetings with better attendance. In that, the present out look for Coosa county society is much better. The health officer's salary is one hundred dollars; and is considered a fair compensation by its president. More has been done than last year, and still more could be done in his line. The question of public sanitation has been given some prominence, but not what it ought to be, with such encouragement. It is to be hoped that the Coosa society will continue to improve.

There are fourteen members in the Fayette county medical society. The society has quarterly meetings, with an attendance better than last year, from the best information I have. The vital and mortuary statistics are satisfactorily collected and done fairly well, according to the assistance the health officer has received. There seems to be a growing interest in this society, but they have failed to do their duty in public sanitation.

Franklin county medical society is doing no good. I failed to get any report from the society last year, but succeeded this, and learn that they had not had a meeting since last summer, and that was poorly attended. The commissioners do not allow the health officer any salary, consequently he does not act. In short, Franklin is doing no good in keeping up her organization and collecting vital statistics.

Lauderdale county society, from the best information gained, seems to be in a better condition than previously. The meetings have been regularly held with an average attendance, and a membership of about twenty. I have no information as to the efficiency of the health officer. His salary is one hundred dollars.

Lamar county society seems not to be making any progress. Want of interest and general apathy prevails, and the prospects for the future not very flattering, having held but one meeting since last April. The health officer is doing fairly well, with a salary of twenty-five dollars.

The Limestone medical society compares favorably with the previous year. The meetings are not regular; the attendance not very good; membership twelve. Health officer has been efficient in collecting vital statistics, and made his annual report, but the monthly reports have not received the attention that they should. Health officer's salary is one hundred and twenty five-dollars. Sanitary condition of the county is fairly good.

Lawrence county society, to use the president's language, is played out; since Drs. Kumpe and McMahan's death, they have had no meetings; the organization is still kept up but with no interest. I have no information as to the health officer's efficiency, nor the sanitary condition of the county.

Pickens county society has sixteen members. The meetings have been better this, than the previous year, due to the fact that there has been an increase in members; also, that there is more interest manifested in the society generally. The health officer is trying to do his duty, but has poor encouragement, as he is paid no salary.

The Madison county society is in a healthy condition, and comes fully up to the standard of the previous year. There were ten regular meetings of the society, with an average attendance, somewhat better than the previous year. The health officer has a salary of two hundred dollars a year, and is doing his work fairly well, and giving satisfaction to the State officer, which speaks well for him. The society, as a board of health, has done its duty as regards sanitary improvments.

Randolph county society is reported to be in a good working condition but does not meet regularly; the regular attendance has been better than last year. The health officer has been efficient in collecting statistics, with no pay for his services, which is commendable in him; but very little attention is paid to public sanitation.

Winston county society, under the circumstances, I think, is doing very well, with a membership of six. It meets regularly, with good attendance. The health officer, considering he gets no pay for his services, is doing the best he can; is efficient in collecting vital statistics, and is very nearly perfect, with a few exceptions.

The Marshall county society is doing little more than keeping up its organization, have met but once in the past year, with an attendance of five. The membership is nine. The health officer has done fairly well in collecting statistics; has not received any salary for his services.

The working condition of St. Clair county society was never better than now; it has met quarterly, with an attendance equal to that of any previous year. All the physicians in the county are members except one, and he is an old man and does very little practice. The health officer has done a good year's work on a salary of twenty dollars.

The working condition of Morgan county society is very good, but not so prosperous, I do not think, as in the previous year. Regular meetings are held monthly, at which times there are relations and discussions of cases which are very interesting. It numbers twenty-two members, with a prospect of an increase in the future. There seems to be more interest manifested recently, and I might safely say, that the future outlook for the society is flattering. Public sanitation has received much attention, especially in the city of Decatur, and more attention will be given to this in the future than has ever been.

Tuscaloosa county society, with a membership of twelve, is in a good working condition, and has met regularly during the year with a better attendance than last year. The health offi-

cer has been efficient in his duties. Public sanitation has received prompt attention. I have no information as to the amount paid the health officer for his services.

Jefferson county medical society has fifty-eight members, and is the largest in the State. Meetings are held every two weeks, with a good attendance. The society is very prosperous, not more so than last year, as there is a decrease in the membership, on account perhaps of some being dropped from the roll. The health officer is doing good and efficient work, and comes up to the standard with his report, and is paid a good salary for his services.

I regret to state that some of the counties have failed to furnish me with the necessary information to make a report, viz: Marion, Randolph, Tallapoosa, Shelby, Walker, Clay, Cleburne, Chambers, DeKalb, and Jackson, but I trust the officers of these societies are fully able to furnish their respective contributions to the valuable information, which is so essentially necessary to the mutual benefit of all the medical societies in the State, as well as the upbuilding and strengthening the local organization. An experience of two years in this department of our work, demonstrates to me clearly the importance of individual effort in thoroughly organizing, according to the requirements of the State Association, aud persistently inducing, by precept and example, to carry out as far as possible all the duties of our system, for, after all, the perpetuity and usefulness of our State organization depends upon the strength and support which it receives from the county societies.

THE ANNUAL REPORT OF THE JUNIOR VICE-PRESIDENT,

BY SHIRLEY BRAGG, M. D.,

Junior Vice-President and Junior Counsellor of the Medical Association of the State of Alabama.

As Junior Vice-President of the Medical Association of the State of Alabama, I beg leave to report that, beginning shortly after our last meeting, I have endeavored to obtain from all the counties in my division such information as is desired by this Association, as well as to impress upon the various societies the necessity of active work, to the end that their organizations might be kept at the highest point, and the interest of the Association and profession thereby augmented.

I have encouraged regular attendance upon meetings, and at all hazards urged the proper and strict enforcement of the health laws. All vice-presidents have been corresponded with, and in many instances health officers and members of societies; the latter, sometimes giving me more information than their officials. I have found in some of my counties an absolute disregard of my letters of inquiry, and in a few, replies so brief as to be almost valueless.

In beginning my labors I issued a circular letter which elicited but few replies, since which time I have written individually scores upon scores of letters, which has entailed endless labor upon me.

The Autauga county medical society is in fair condition and meets quarterly, but the progress in collection of vital statistics has been small.

As to Baldwin county our doctors there are still confronted with almost insurmountable obstacles. With a few doctors, a vast territory, and a small population, the collection of vital statistics is very difficult. The board of censors is reported

efficient, but the society has lost a working member in the removal of Dr. Marechal to Mobile.

From Barbour county my information is limited, but this society appears to be in fair working order.

The membership of the Butler county medical society is large enough to warrant thorough work, but members are indifferent as to attending the meetings promptly, and to some extent the work is dragging along. The health officer is reported as trying to do his duty.

The Conecuh county medical society is in good condition, with an efficient board and health officer.

The Crenshaw county medical society is in fair condition. The board of censors, as well as health officer, are reported efficient, though the latter experiences some trouble in the collection of vital statistics.

The Dallas county medical society is in good condition. The board of censors are efficient, and the health officer is reported as only partially succeeding in the collection of vital statistics.

The condition of the Elmore county medical society is not very encouraging; the organization is merely kept up. The board of censors are reported inefficient, but the health officer strives to do his duty.

The Escambia county medical society is not as active as it should be, but the health officer and board of censors are reported efficient.

The Dale county medical society is merely existing, and there is apparently a want of concert of action among all concerned.

The same may be said of the Covington county medical society.

The Greene county medical society is in a state of apathy, and the health officer is seemingly unable to work his county successfully.

The medical society of Hale county is in good condition, with an efficient board of censors. The health officer in this county experiences great difficulty in collecting vital statistics.

The Marengo county medical society has a fair membership, and should do good work. I am sorry to be unable to report much progress from this society.

The Henry county medical society is still dragging along, with no enthusiasm in its ranks and no work of any kind worth mentioning, being done.

The Monroe county medical society meets semi-annually, and is in fair working order. The board of censors is reported efficient, and the health officer is succeeding tolerably well in the collection of vital and mortuary statistics.

The Mobile county medical society has a large membership; it holds regular meetings, which are well attended. The board of censors is efficient, and the collection of vital and mortuary statistics for the city are perfect. A new county health officer has been elected during the year.

The Montgomery county medical society is among the strongest in the State. The board of censors is efficient, and the health officer has succeeded fairly well in the discharge of his duties.

The reports from the Russell county medical society are encouraging. The board of censors and health officer are reported as efficient.

The Sumter county medical society is in good working condition, with an efficient board of censors. The health officer complains of his inability to collect vital and mortuary statistics in many of the beats.

The Washington county medical society exists only in name, and there appears to be a general inefficiency all round.

The Lowndes county medical society, though small, is in good working order. The board of censors, as well as the health officer, are efficient.

The Lee county medical society has seemingly taken on new life. The society has re-organized and another effort is being made to collect vital and mortuary statistics.

From Wilcox county medical society very little information has been obtainable, but seemingly there has been little or no progress.

It is my unpleasant duty to report that I have been unable to obtain information from any source concerning the counties of Clark, Geneva, Coffee, Pike Choctaw, Macon, Chilton and Perry.

In closing this, my report, I would suggest, that, if the vital statistics law was changed so as to make heads of families alone report births and deaths, the vital and mortuary statistics problem would be solved. If the law is to remain as it now is, county health officers should be adequately paid, for poor pay begets poor work and inferior men to do it. Many of our health officers are actively engaged in the practice and have neither the time or inclination to devote to this work regularly without remuneration.

In reference to a state of apathy existing in many of the societies, I find that good men are often driven off by expulsion for non-payment of dues, in many instances exorbitant. In my humble opinion all the societies could be regenerated by the small collection of a dollar per annum from each member, and the expulsion claim stricken out. This latter is repugnant to a sensitive man, and once enforced a member is lost forever.

THE ANNUAL REPORT OF THE SECRETARY.

Mr. President:

The recommendation of the publishing committee last year, to leave out of the Transactions all unimportant matters, and the transfer of certain duties by an ordinance of the Association, together with other minor details, lessened by experience, and narrows my report to a few pages, which I now,

Respectfully submit,

T. A. MEANS, M. D.,
Secretary.

PUBLICATIONS RECEIVED BY THE STATE BOARD OF HEALTH LIBRARY, DURING THE YEAR 1889.

Reports of the State Boards of Health.....31
Reports of the City and County Boards of Health.....17
Reports of the State, County and City Officials.....19
Reports of Sanitary Committees, Conventions, and Associations.13
Reports of the Committees of the American Public Health Association..... 2
Proceedings of the American Medical Association..... 1
Transactions of the State Medical Associations, '87, '88, '89.....48
Government Publications.....142
National Board of Health Publications..... 9
Monthly and Weekly Statements of Boards of Health 17
Miscellaneous Medical Journals (mostly old nos.) 370
Miscellaneous Papers, Monographs, Lectures, Essays, Addresses, etc.....230

MONTHLY MEDICAL AND SURGICAL PERIODICALS.

Alabama Med. and Surgical Journal, Vol. 1, '88–89 (set complete),24 nos.
Atlanta Medical and Surgical Journal, '88–89 (complete).....24 nos.
The Sanitary Inspectors, '89 .....12 nos.
The Sanitary Volunteer, '89.....12 nos.
The Sanitarian, '89.....12 nos.
The Sanitary Era, '89.....12 nos.
The Cleveland Medical Gazette, '89.....12 nos.

The Monthly Sanitary Review, '89	12 nos.
The Monthly Journal of Medical Practice, May to Dec	8 nos.
The Nashville Journal of Medicine and Surgery, '89	12 nos.
Daniels Medical Journal, '89	12 nos.
Medical Practice, '89	12 nos.
Monthly Bulletin of the Iowa State Board of Health, '89	12 nos.
Monthly Bulletin of the Tennessee State Board of Health, '89	12 nos.
Monthly Bulletin of the Minnesota State Board of Health, '89	12 nos.
Monthly Bulletin of the N. Carolina State Board of Health, '89	12 nos.
Weekly Abstracts of Sanitary Reports, '89	52 nos.
Total	1,463

Nine hundred and seventy-eight of the above publications were contributed by Dr. Jerome Cochran.

By slow degrees the important work of writing up the book of the rolls; of keeping the gallery of portraits, and of transferring the photographs of deceased counsellors to the grand roll of honor, is advancing to completion. The portraits of all the grand senior counsellors are now in place, and will be kept so by transfer from the senior and junior counsellors as the links are broken.

I find less difficulty now than in years gone by, and at a time when a counsellor did not estimate so fully as now, the value of a place in these records, in obtaining photographs from junior counsellors of five years standing than from the senior class.

To the book of the dead has been added the present year, the names, portraits and biographical histories of Doctors James Myers Godfrey, of Sumterville, Augustus Jordan Reese, of Mobile, and John Patrick Muchat of Hayneville.

The six counsellors elected at the Mobile session have each accepted the position, affixed their signatures to the counsellors pledge, and the same placed on file in this office.

CORRESPONDENCE.

NEW YORK, May 10, 1889.

Dear Sir—Your favor informing me of my election as "Correspondent of the Medical Association of the State of Alabama," at its late

annual meeting, has been received. I accept the membership with great pleasure, and beg to tender through you to the Association, my cordial thanks for the honor thus conferred upon me.

Alabama being my native State, and in which I passed the better part of my life, I naturally feel an especial interest and pride in all that relates to the people and to the Medical profession there. The State has long been distinguished for her eminent physicians and surgeons, and her progressive medical organizations. The solid character of the work and writings extant in her medical literature, is well known to the profession at large. The names of LeVert, Nott, Lewis, Holt, Bolling, Ames, Sims, Baldwin, and of many others that have passed to the majority, can be pointed to with pride as beacons in the broad field of science, and they will continue to shine through generations yet to come.

I hope, after an absence from the State of over a quarter of a century, it may be my good fortune, at no distant day, to be able to attend a meeting of the Association, and to grasp the hands in renewed intercourse, of my few remaining old friends, as well as of the new ones to whom I know I am largely indebted for the complimentary membership it is now my pleasure to accept.

I have recently had an engraved portrait made of myself. If your Association has a library, or may have one in contemplation for your archives, and my portrait should be thought worthy of a place in a collection of the physicians of the State, it would give me pleasure to present, not only this, but copies of the various publications I have made upon medical subjects, as far as may be in my power to do so.

Yours very truly,

NATHAN BOZEMAN,
9 west 31st street, New York.

To T. A. MEANS, M. D.,
Secretary M. A. S. A.,
Montgomery, Alabama.

AMERICAN MEDICAL ASSOCIATION,

WILLIAM B. ATKINSON, M. D., *Permanent Secretary*,

1400 Pine Street, Southwest Cor. Broad,

PHILADELPHIA, October 13, 1889.

DEAR DOCTOR—At our recent session in Newport, the Committee on Uniform Medical Legislation in the United States presented the following report, which was unanimously adopted, and a copy was directed to be sent to the Secretary of each State Medical Society, with the re-

commendation that each society exert itself to secure the enactment of a law embodying the provisions of the report:

"That, in our judgment, the best interests of the public will be subserved by the enactment of efficient medical legislation in every State in the Union.

"That for the convenience of the profession and the stimulating effect on medical education in this country, it is advisable to secure uniformity of legislation in the essential features of all Medical Practice Acts.

"This Committee therefore begs to recommend as follows—that in future medical legislation the essential features of the enactment be as follows:

"That all persons commencing the practice of medicine in any of its branches shall possess a license from the State Board of Medical Examiners.

"That all candidates for a license shall submit satisfactory documentary evidence that he or she is a graduate in medicine of a medical institution in good standing with the said board, and having a curriculum possessing at least the following requirements:

"First—An entrance examination to test the student's fitness to become a practitioner. This examination shall include at least an examination in English grammar, composition, geography, history, arithmetic, algebra, physics, and the natural sciences; together with at least one of the following languages: Latin, French or German; provided, however, that graduates of reputable colleges may be exempt from said examination.

"Second—Before granting a decree of M. D. or M. B., candidates for the same shall have attended at least three full and regular courses of medicine of not less than six months' duration each.

"All candidates for a license shall undergo an examination by the said Board of Medical Examiners upon the branches usually taught in medical colleges. Said examination shall be both scientific and practical, but of sufficient severity to test the candidate's fitness to practice medicine and surgery.

"Said Board of Medical Examiners shall issue a license to only such persons undergoing an examination as may be deemed suitable to practice medicine. Said board may refuse or revoke a license for the following named causes, to-wit: chronic and persistent inebriety, criminal abortion, or gross unprofessional conduct.

"All licenses shall be recorded and made a matter of public record with the County Clerk, or Clerk of District Court, in the county wherein resides said person.

"Said Board of Medical Examiners shall be appointed by the Governor, for a period not exceeding five years, the members thereof to be

chosen from among the reputable practitioners of medicine in the State of not less than five years residence."

Please acknowledge the receipt of this, and after your society has acted, please inform me what action they have taken.

Yours very truly,

WM. B. ATKINSON.

THE ANNUAL REPORT OF THE PUBLISHING COMMITTEE.

Mr. President:

The publishing committee beg to present the following report of its official work for the past twelve months:

There were published of the Transactions for 1889 one thousand copies, at a cost of—

Printing	$791 47	
Binding	200 00	
Postage, packing and shipping	22 00—	$1,013 47

A saving of $87.90 over that of last year.

In addition there were printed for use of the Secretary—

700 postal cards, two forms	10 25	
1000 letter heads	4 50	
2000 envelopes—stamped	4 00	
1000 four-page circulars	8 00—	26 75
Total expenses of publishing committee		$1,040 22

Of the one thousand copies of the Transactions there were distributed—

To county societies	592
Counsellors	185
Delegates	106
Correspondents	10
Fraternal messengers	2
Exchanges	32
Medical Journals	9
Federal Government	7
State Government	5
Alabama State Board of Health	51
Office of Secretary	1
Total distribution	1000

The classified list of exchanges published last year remains the same with two new State associations added to it, namely—the South Dakota Medical Society, and the Idaho State Medical Society, making a

total of thirty-one out of the thirty-eight medical organizations in the United States in exchange with us. The remaining seven will be added this year.

Of the five medical journals authorized to be placed on the list of exchanges, the Atlanta Medical and Surgical Journal and Practice have reached this office regularly. The Cleveland Medical Gazette, The New Orleans Medical Journal, and the Texas Medical Journal, were received through the State Board of Health.

The publishing committee are more impressed than ever before of the useless expenditure of money for printing matter already worn out by iteration and reiteration. Therefore, we respectfully repeat what was suggested in our last report, namely, that all exchanges received be receipted for at the time, and not made to encumber the volume of Transactions by a second acknowledgment of them.

T. A. MEANS, M. D.,
R. F. MICHEL, M. D.,
B. J. BALDWIN, M. D.
Publishing Committee.

THE ANNUAL REPORT OF THE TREASURER.

WALTER CLARK JACKSON, M. D., *Treasurer,*

In account with the Medical Association of the State of Alabama, from April 9th, 1889, to April 8th, 1890.

TO DUES FROM COUNSELLORS.

Abernethy, William Henry, Tinela	$ 10 00
Baldridge, Milton Columbus, Huntsville	10 00
Baldwin, Benjamin James, Montgomery	10 00
Barclay, James Paxton, Eutaw	10 00
Binford, Peter, Somerville	10 00
Bragg, Shirley, Lowndesboro	10 00
Brockway, Dudley Samuel, Livingston	10 00
Brown, Pugh H., Troy	10 00
Bryce, Peter, Tuscaloosa	10 00
Cason, Davis Elmore, Ashville	10 00
Cross, Benjamin Franklin, Decatur	10 00
Cochran, Jerome, Mobile	10 00
Darby, John Isaac, Columbia	10 00
Dement, John Jefferson, Huntsville	10 00
DuBose, Wilds Scott, Columbiana	10 00
Fletcher, Richard Mathew, Madison Station	10 00
Franklin, Charles Higgs, Union Springs	10 00
Furniss, John Perkins, Selma	10 00
Gaines, Vivian Pendleton, Mobile	10 00
Godfrey, James Myers, Sumterville	10 00
Gaston, John Brown, Montgomery	10 00
Goggans, James Adrian, Alexander City	10 00
Goodwin, Albert, Eufaula	10 00
Goodwin, Joseph Anderson, Jasper	10 00
Harlan, John Jefferson, Hackneyville	10 00
Hays, Robert Hughes, Union Springs	10 00
Heacock, John William, Alpine	10 00
Herbert, Curtis Burke, Greenville	10 00
Hill, Luther Leonidas, Montgomery	10 00
Hill, Samuel Henry, Carrollton	10 00
Hogan, Samuel Mardis, Union Springs	10 00
Hendrick, Gustavus, Brundidge	10 00

Hopping, Daniel Stiles, Letohatchie	$ 10 00
Hoffman, John Richardson, Athens	10 00
Huger, Richard Proctor, Anniston	10 00
Huggins, Jacob, Newbern	10 00
Inge, Henry Tutwiler, Mobile	10 00
Jackson, Robert Dandridge, Summerfield	10 00
Jackson, Walter Clarke, Montgomery	10 00
Jay, Andrew, Evergreen	10 00
Jones, Capers Capehart, Lakeview	10 00
Jones, John C. H., Stone	10 00
Jones, John Paul, Camden	10 00
Johnston, William Henry, Birmingham	10 00
Kendrick, Joel Beder, Birmingham	10 00
Kendrick, Joel Cloud, Greenville	10 00
Kendrick, William Toulmin, Montgomery	10 00
Ketchum, George Augustus, Mobile	10 00
Luckie, James Buchner, Birmingham	10 00
Lowry, Samuel Henry, Huntsville	10 00
Means, Thomas Alexander, Montgomery	10 00
Michel, Richard Fraser, Montgomery	10 00
Mitchell, William Augustus, Eufaula	10 00
Moody, Joseph, Franconia	10 00
Mushat, John Patrick, Hayneville	10 00
McKinnon, John Alexander, Selma	10 00
McKittrick, Adam Alexander, Evergreen	10 00
McWhorter, Abbott Milton, Gaylesville	10 00
Nicholson, Edward Pierson, Valley Head	10 00
Nolen, Abner Jackson, New Site	10 00
Northen, Thomas Ashland	10 00
Peterson, Francis Marion, Greensboro	10 00
Phillips, William Crawford, Selma	10 00
Prince, Francis Marion, Bessemer	10 00
Pritchett, John Albert, Hayneville	10 00
Redden, Robert James, Sulligent	10 00
Reese, Augustus Jordan, Mobile	10 00
Robertson, Thaddeus Lindlay, Birmingham	10 00
Rorex, James Polk, Scottsboro	10 00
Rushing, Francis Marion, Elba	10 00
Sanders, William Henry, Mobile	10 00
Searcy, James Thomas, Tuscaloosa	10 00
Sears, John William, Birmingham	10 00
Seelye, Samuel Dibble, Montgomery	10 00
Sholl, Edward Henry, Birmingham	10 00
Sledge, William Henry, Livingston	10 00
Smith, Daniel Edgarly, Mobile	10 00

Starr, Lucius Ernest, Camden	$ 10 00
Stovall, Andrew McAdams, Jasper	10 00
Thetford, William Fletcher, Talladega	10 00
Thigpen, Job, Greenville	10 00
Thomas, James Grey, Mobile	10 00
Trent, Powhatan Green, Rock Mills	10 00
Wall, Conrad, Forest Home	10 00
Ward, Henry Bascom, Cubs	10 00
Weatherly, Job Sobieski, Montgomery	10 00
Webb, Robert Dickens, Birmingham	10 00
Whaley, Lewis, Birmingham	10 00
Wheeler, William Camp, Cherokee	10 00
Whelan, Charles, Birmingham	10 00
Wilkerson, Wooten Moore, Montgomery	10 00
Wilkinson, James Anthony, Flomaton	10 00
Wright, Milton Roil, Gadsden	10 00
Total amount of dues from Counsellors	$ 930 00

FROM COUNSELLORS ELECT.

Crook, John Martin, Jacksonville	5 00
Goode, Rhett, Mobile	5 00
Hudson, William Henry, La Fayette	5 00
LeGrand, John Clark, Anniston	5 00
Marechal, Edwin Lesley, Mobile	5 00
Toole, Barclay Wallace, Talladega	5 00
Total amount of dues from Counsellors elect	$ 30 00

TO AMOUNT OF DUES FROM DELEGATES.

Andrews, Glenn	$ 5 00
Arbery, W. B	5 00
Baker, D. H	5 00
Bass, J. L	5 00
Blake, W. H	5 00
Bondurant, E. D	5 00
Boyd, A	5 00
Cameron, M. B	5 00
Chew, W. L	5 00
Crook, J. M	5 00
Davis, H. G	5 00
Deweese, T. P	5 00
Donald, J. M	5 00
Duncan, J. H	5 00

Fountain, H. T	$ 5 00
Gage, F. F	5 00
Goode, Rhett	5 00
Gwin, H. B	5 00
Gay, S. G	5 00
Head, W. J	5 00
Henderson, S. C	5 00
Henson, J. M	5 00
Hollis, D. D	5 00
Horn, J. R	5 00
Hudson, W. H	5 00
Hunter, H. M	5 00
Johnson, M. L	5 00
King, E. A	5 00
LeGrand, J. C	5 00
Marechal, E. L	5 00
Mason, A. J	5 00
Minor, J. L	5 00
Mohr, C. A	5 00
McCall, D	5 00
McDade, G. W	5 00
McMillan, W. W	5 00
Perry, C. F	5 00
Pape, W. B	5 00
Price, P. I	5 00
Robertson, C. A	5 00
Riggs, E. P	5 00
Rushing, J. K	5 00
Sims, F. H	5 00
Steadham, O. M	5 00
Stewart, J. P	5 00
Tankersly, F. M. T	5 00
Thigpen, C. A	5 00
Thomas, C. B	5 00
Toole, B. W	5 00
Trammell, J. D	5 00
Ward, T. J	5 00
Weatherly, C. T	5 00
Wedgeworth, W. M	5 00
White, T. N	5 00
Whitfield, C. B	5 00
Wilkerson, C. A	5 00
Williams, Z. W	5 00
Wyman, B. L	5 00
Total receipts from delegates	$ 290 00

DUES FROM COUNTY MEDICAL SOCIETIES.

Autauga	$ 7 00
Baldwin	1 00
Barbour	14 00
Bibb	2 00
Blount	5 00
Bullock	13 00
Butler	1 00
Chambers	6 00
Cherokee	14 00
Choctaw	14 00
Clarke	17 00
Cleburne	8 00
Coffee	
Colbert	5 00
Conecuh	5 00
Covington	
Crenshaw	6 00
Coosa	8 00
Chilton	3 00
Clay	11 00
Calhoun	25 00
Cullman	7 00
DeKalb	8 00
Dale	10 00
Dallas	17 00
Elmore	13 00
Escambia	8 00
Etowah	11 00
Fayette	6 00
Franklin	13 00
Geneva	
Greene	5 00
Hale	12 00
Henry	10 00
Jackson	14 00
Jefferson	40 00
Lamar	6 00
Lauderdale	
Lawrence	9 00
Lee	
Limestone	5 00
Lowndes	
Macon	9 00
Madison	16 00

Marengo	$ 11 00
Marion	
Marshall	10 00
Mobile	6 00
Monroe	6 00
Montgomery	17 00
Morgan	22 00
Perry	13 00
Pickens	5 00
Pike	9 00
Randolph	8 00
Russell	5 00
Shelby	10 00
St. Clair	11 00
Sumter	17 00
Talladega	18 00
Tallapoosa	4 00
Tuscaloosa	10 00
Walker	10 00
Washington	1 00
Wilcox	5 00
Winston	4 00
Total amount from County Medical Societies	$ 586 00

STATEMENT.

To amount dues from Counsellors	$ 930 00	
Amount dues from Counsellors elect	30 00	
Amount dues from Medical Societies	586 00	
Amount dues from Delegates	290 00	
Balance last Session	1,005 51	
W. C. Cross, 1888	10 00	
Sales Book of the Rules	74 54	
S. J. Cooper	1 00	
T. A. Means, Secretary	2 50	
Total		$ 2,929 55

CREDITS.

By account Brown Printing Co. (Transactions)	$1,052 97
" " " (Book of the Rules)	450 00
account Troy & Tompkins	56 25
" " "	57 00
account Joel White	101 00
" " "	10 65

By T. A. Means, salary	$ 250 00	
" "	22 80	
W. C. Jackson, salary	100 00	
W. C. Jackson	10 00	
Moses Bros. & Co	20 00	
Total credits		$ 2,130 67
Balance on hand		$ 798 88

The following counsellors have not paid their dues: A. G. Emory, Frank Tipton.

The counties of Coffee, Covington, Geneva, Lauderdale, Lee, Lowndes and Washington are delinquent of dues.

Respectfully submitted,

WALTER CLARK JACKSON, M. D.,
Treasurer.

THE SCHEDULE OF SPECIAL COMMITTEES.

Dr. Edward H. Sholl, of Birmingham, chairman of the committee on permanent home for the widows and orphans of physicians, and superannuated physicians, made the following report:

Your committee on the home for the widows and orphans of physicians and superannuated physicians, would respectfully report that they have agreed to recommend that each member of our county medical societies be requested to contribute annually one dollar, or more, if desired, until such time as the accumulated fund in the hands of the association shall be sufficient to carry out the desired plan. With a desire to place the matter at the earliest practicable date before our county medical societies, the chairman wrote to each society advising them as to the nature of the report the committee would make, and invited a discussion of the topic, and any contribution they might see fit to bring here to be handed over after proper action was taken on the report of the committee. The recommendation was unanimously passed by the Jefferson county medical society, and quite recently a number of the members of the Montgomery county medical society agreed to act in compliance with its requests, and to-day, April 7, the chairman is notified by the secretary of Mobile medical society that they formally approve of the plan and recommend its adoption.

The committee believe the plan to be simple, feasible and wise, and its accomplishment to be but the work of time and patient gathering, and trust that the association may see fit to act favorably upon its report and commend it to the hearty good will of the profession of Alabama.

During the year, Dr. LeGrand, of Anniston, was chosen to fill the place made vacant by the death of Dr. M. H. Jordan, a former member.

We recommend that all funds contributed shall be placed in the hands of five trustees, whose term of service shall be for five years, chosen by the association, and that they and their successors, duly incorporated under the laws of the State of Alabama, shall invest the funds as they deem for the best interest of the home, and make an annual report of their trusteeship to the association.

We would recommend that contributions be invited and received from other sources, and its beneficent purposes be made widely known

by the fraternity, so that it may be the recipient of the legacies of the charitably disposed.

E. H. SHOLL, M. D.,
Chairman.

On motion the report was received, and the committee continued, consisting of—

Edward H. Sholl, J. C. LeGrand, Robert D. Webb, Benjamin J. Baldwin, James T. Searcy, Benjamin F. Cross, Pugh H. Brown.

The committee on Library and Museum, Dr. Benjamin J. Baldwin, chairman, submitted the following report:

As chairman of the board of trustees of the Medical Library and and Museum I have this to report:

After submitting the ordinance passed at Mobile, together with the charter of the association, to a loan broker, who had previously agreed to float the bonds for us, I received the following reply, viz:

That he (the broker) had submitted the ordinance and charter to his Philadelphia house; that their attorney had investigated the same, and reported that, in his opinion, the association did not have the power to issue bonds.

Under the circumstances it will be necessary for us to obtain an amendment to our charter, which can be done at the next meeting of the legislature. I have positive assurance that the bonds will then be speedily placed.

B. J. BALDWIN, M. D., *Chairman.*

Dr. Peter Bryce, of Tuscaloosa, chairman of committee on contract practice, read the following report:

The committee appointed to consider contract practice and report at this session of the association, have carefully considered the many difficulties involved, and beg to respectfully submit the following, as a substitute for section three of the ethical ordinance of the association, page 222 of the book of rules, as a solution of the problem, and respectfully request its adoption:

Be it ordained by the Medical Association of the State of Alabama, That physicians may practice for a stated salary for any railroad corporation so far as railroad accidents and injuries are concerned; for any mining or manufacturing establishment, but not to include the salaried

officials and managers of such establishments; for state, city or municipal, educational and charitable institutions; and on plantations cultivated by tenants or hired laborers, and that all underbidding and soliciting under this system of practice, shall be regarded as unprofessional and unethical in the same way and to the same extent as in ordinary private practice.

PETER BRYCE,
J. B. GASTON,
M. C. BALDRIDGE,
CHARLES WHELAN,
JOHN C. LEGRAND,
Committee.

The report was received, and the Secretary instructed to have fifteen hundred copies prepared, and send one to each doctor in the State. The committee was then discharged.

The Secretary read a letter from Dr. W. C. Cross, of Blocton, requesting the Association to reconsider its action at the Mobile session of last year, dropping him from membership on the charge of contract practice, without giving him a hearing or opportunity to defend himself. The letter, under the rules, went, without discussion, to the board of censors.

On motion, the Association adjourned to meet in O'Brien's Opera House at 8 o'clock, p. m., to hear the Annual Oration of Dr. Henry Tutwiler Inge, of Mobile.

EVENING SESSION—O'BRIEN'S OPERA HOUSE.

Dr. Charles Higgs Franklin, President, called the Association to order at 8 o'clock, and, after prayer by the Rev. Dr. W. L. Pickard of the First Baptist church, introduced the orator of the evening, Dr. Henry T. Inge, of Mobile.

The Birmingham Age-Herald has this to say:

Dr. Inge's speech was a model one in all respects, and for over a half an hour he held the audience with his well rounded periods and splendidly expressed sentiments. In the beginning he paid Birmingham a glowing tribute, and spoke eloquently of her as the pride of Alabama and of the great south.

For the subject of his address Dr. Inge selected "The physician as a factor in the progress of the state in which he resides." The subject he handled with gloves off. He spoke of the wonderful progress of Alabama and her gifted sons in the world of medicine, and while the laws that she now had to prevent quackery were strong, yet they needed improvement, and the legislature should not refuse the association and the physicians any law they asked for, when it led to the preservation of the lives of the people and the advancement of the medical profession.

Dr. Inge spoke of the number of quacks that many states had, and particularly Louisiana, and said that Alabama should look to it that quacks are kept out of the confines of the state. He closed his remarks by an appeal in favor of cremation in preference to the present system of interring the bodies of our loved ones, and said he hoped to see the day when Alabama physicians should receive fees only so long as their patients kept well.

Dr. Inge's address, from first to last, was greatly enjoyed, and the impression he made was a most favorable one.

PROCEEDINGS OF THE SECOND DAY.

WEDNESDAY, APRIL 9.

The Association assembled in Sublett Hall at 10 o'clock and was opened with prayer by the Rev. F. J. Tyler, of Birmingham.

Under the head of miscellaneous, business next in order, Dr. R. Frazer Michel of Montgomery, moved that Col. Henry D. Capers, of Fort Payne, a distinguished graduate of medicine in "Auld Lang Syne," be presented to the convention. The motion being unanimously carried, Dr. Michel proceeded to the stage and introduced Col. Capers in a felicitous address. He referred to his associations with Dr. Capers in Charleston, S. C., who was then laying the foundation for the education that has made him useful, and an ornament to the professions of medicine and law.

Col. Capers proceeded to address the convention. He referred to the associations of his early life, and paid a tribute to his old tutor, Dr. Middleton Michel, of Charleston, that was full of touching recollections and eloquent in its review of those golden days in the social and scientific history of the "City by the Sea." Col. Capers recalled his college days when, under the guidance of Dr. Michel, he became the private pupil of Brown-Sequard, the great French vivisectionist, to the experiments then made on the nervous system, the motor and sensitive fibers of the nerves. The Colonel surprised his friends by displaying a knowledge of physiology and anatomy which many practicing physicians do not have. His address will be remembered pleasantly, and was quite an episode in the proceedings of the convention.

EXCURSION TO PRATT MINES.

Judge H. G. Bond, of Birmingham, General Manager of the Tennessee Coal, Iron and Railroad Company, extended invita-

tions to members of the Association, to visit the mines and prisons at Pratt Mines and the furnaces at Ensley. The invitation was at once accepted, thanks returned, and the hour of 3 oclock p. m., chosen for the trip.

Invitation was also extended to the association by the Mendelssohn Club through its president, W. J. Cameron, to attend a concert to be given by the club at their rooms this evening. Thanks of the association were tendered for the compliment.

Dr. B. J. Baldwin made his report as chairman of the Board of Trustees on Library and Museum, passed over yesterday by reason of his absence. The report went to the Board of Censors, and may be found in full in the list of special committees.

The report of Dr. Benjamin F. Cross, senior vice-president, should have been made yesterday in its order. Dr. Cross was detained at home by sickness and requested Dr. Enoch J. Conyngton to read it. Passed to the Board of Censors and appears in its proper place.

On motion of Dr. R. F. Michel of Montgomery, the rules were suspended and the following telegram sent to the Medical Association State of Tennessee, now in session in the city of Memphis:

The Medical Association of the State of Alabama now in convention, sends greeting to her sister Association, with the hope she will have a prosperous session and many annual reunions.

CHARLES H. FRANKLIN, M. D., Pr.

T. A. Means, M. D., Secty.

The secretary then proceeded to call the schedule of regular reporters, and in the order of their appointment, viz:

(1) Headache and Neuralgia Resulting from Refractive Errors; Dr. Benjamin J. Baldwin, Montgomery. Read and referred to the Publishing Committee.

(2) Perineal Lacerations and their Treatment; Dr. Enoch J. Conyngton, Decatur. Read and referred to the Publishing Committee.

(3) The Study of the Treatment of Local and General Peritonitis; Dr. W. E. B. Davis, Birmingham. Read and referred to the Publishing Committee.

(4) Cerebro-Spinal Fever; Dr. John B. Gaston, Montgomery. Read and referred to the Publishing Committee.

(5) Congenital Club-foot and its early Treatment; Dr. Samuel M. Hogan, Union Springs. Read and referred to the Publishing Committee.

(6) Antiseptics in Surgery; Dr. Chris. A. Robinson, Huntsville. Read and referred to the Publishing Committee.

(7) The Practical Relation of the Physician to Life Insurance; Dr. Edward H. Sholl, Birmingham. Read and referred to the Publishing Committee.

(8) Some Observations made during a Trip Abroad; Dr. James G. Thomas, Mobile. Read and referred to the Publishing Committee.

(9) The Therapeutics of the Endometrium; Dr. Isaac L. Watkins, Montgomery. Read by title and referred to the Publishing Committee.

(10) Some Thoughts on our Modern Therapeutics; Dr. James A. Wilkinson, Flomaton. Read and referred to the Publishing Committee.

VOLUNTEER PAPERS.

(1) Therapeutic value of Phenacetine; Dr. Thomas W. Ayers, Jacksonville. Read and referred to the Publishing Committee.

(2) Tuberculosis as an Infectious Bacilliary Disease, and its Relation to Hygiene; Dr. William H. Hudson, La Fayette. Read and referred to the Publishing Committee.

(3) Physical Research and Practical Medicine; Dr. John E. Purdon, Cullman. Read and referred to the Publishing Committee.

(4) Placenta Prævia; Dr. Henry M. Hunter, Union Springs. Read and referred to the Publishing Committee.

(5) Some Remarks on Rheumatism in Infant Life; Dr. James R. Jordan, Montgomery. Read and referred to the Publishing Committee.

(6) The Continued Fevers in Alabama; Dr. John P. Furniss, Selma. Read and referred to the Publishing Committee.

(7) Treatment of Organic Strictures of the Urethra; Dr. Edward W. Morris, Birmingham. Read and referred to the Publishing Committee.

(8) Treatment of Hemorrhoids with Special Reference to Operative Procedures; Dr. B. Leon Wyman, Birmingham. Read and referred to the Publishing Committee.

(9) The Early Diagnosis of Carcinoma Uteri as Relating to Curative Treatment; Dr. James Lanier Darwin, Huntsville. Read and referred to the Publishing Committee.

ADDITIONAL VOLUNTEER PAPERS NOT SCHEDULED.

(1) Ovariotomy by McDowell's Incision in Alabama; Dr. Nathan Bozeman, New York. Read by the Senior Censor and referred to the Publishing Committee.

(2) Tuberculosis; Dr. John Pope Stewart, Attalla. Read by title and referred to the Publishing Committee.

(3) Treatment of Corneal Ulcers; Dr. Samuel L. Ledbetter, Birmingham. Read at the night session and referred to the Publishing Committee.

EVENING SESSION.

President Franklin called the meeting to order at 8 o'clock, and made known the object for which the Association had assembled, namely: The discussion of the best methods of administering the health laws and the law to regulate the practice of medicine in Alabama.

Dr. Jerome Cochran, Senior Censor, then took the floor, and stated that he would open the discussion of the subject, as it was one in which he was deeply interested, and that every medical man should feel the same way. He stated that there was no doubt that the present methods of administering the health laws were imperfect, and that it devolved upon the medical profession throughout the State to correct this condi-

tion of things, and to assist him in his labors in every way possible. He yielded the floor to others who spoke earnestly of the benefits to be had from a discussion of these beneficent laws. These meetings are largely attended and great good obtained.

In the convention Dr. Cochran read the following communication, after stating its connection, and the body cheerfully indorsed his sentiments amid hearty applause:

I do not desire to interfere with the internal affairs of Louisiana, but I think I may say without impropriety, that I know Dr. Wilkinson well, and have great confidence in his skill, integrity and efficiency as a health official, and that I believe all the health officials of the Mississippi Valley will feel with regard to it as I do. We all know him, and we are all deeply interested in the quarantine management and policy, and in the management of yellow fever should it appear in your city. I feel sure all would regret to hear of Dr. Wilkinson's defeat.

Dr. W. H. Sanders of Mobile, in order that the Association of the State of Alabama might be understood in the matter, offered the following resolution:

Resolved, That the Alabama State Medical Association, also the State Board of Health of Alabama, being now in session, have by special vote expressed their approval of the message sent by Dr. Cochran to *The Times-Democrat*, and as representatives of the health interests of the State of Alabama would regret to have Dr. Wilkinson seperseded.

On motion the resolution was adopted, and sent at once to "The Times-Democrat."

The Association then adjourned to 10 o'clock, a. m., tomorrow.

THE PROCEEDINGS OF THE THIRD DAY.

Thursday, April 12—Morning Session.

The Association was called to order promptly at 10 o'clock, a. m., by the President, and opened with prayer by the Rev. Dr. Beard of the Church of the Advent—Episcopal.

Unfinished and miscellaneous business being next in order, the Secretary read the remaining voluntary papers left over from yesterday's session. The titles and authors of these several papers follow the list of regular essays, page 64.

Discussion of them may be found under their respective headings. [See Appendix of Medical and Sanitary Dissertations and Reports.]

Adjourned at 3 p. m., to meet in Sublett Hall to attend the Banquet at the Caldwell House, given in honor of the Association, by the Jefferson County Medical Society, and citizens of Birmingham.

Evening Session.

The Association assembled at 8 o'clock. The remaining hour was taken up in the reading of a paper by Dr. Samuel L. Ledbetter, on the Treatment of Corneal Ulcers. This paper was submitted without discussion and referred to the publishing committee, and may be found in its proper place.

The Association now adjourned, and proceeded in a body, under direction of the committee of arrangements, to the Caldwell House.

The banquet was in many respects the largest and most elegant ever given in Birmingham. The management left nothing undone for the entertainment of their guests, who, to a man, will ever call up this free offering as the most memorable event in the history of the Association.

THE PROCEEDINGS OF THE FOURTH DAY.

Friday, April 11.

The Association was called to order by the President, Dr. Franklin, at 10 o'clock, a. m., and opened with prayer by the Rev. B. W. McCoy, of the Methodist church.

Miscellaneous business being next in order, Dr. James T. Searcy of Tuscaloosa, offered the following

VOTE OF THANKS.

Resolved, That the thanks of this Association are due, and hereby extended to the following corporations and individuals:

1. To the different railroads of the State, that have granted reduced fare to the members of our Association attending this meeting.

2. To the Tennessee coal, iron and railroad company, who, through their efficient general manager, Judge H. G. Bond, extended the invitation, and so pleasantly managed the excursion to Pratt Mines on yesterday; also to Dr. R. M. Cunningham, surgeon in charge of the convict camps, and to Col. R. H. Dawson, president of the State board of inspectors, who added very much to our information and our satisfaction as to the care and management of the class of people under their charge.

3. We desire to thank the managers of the board of charities for their invitation to visit the wards of their hospital. We thank most heartily the ladies, who, by their delightful music and recitations, so elegantly entertained us on Tuesday evening; also the members of the press, of the local society and other citizens of Birmingham, who so generously and bountifully showered their hospitalities upon us.

The resolution was unanimously adopted.

The Senior Censor proceeded to read the seventeenth annual report of the Board of Censors and Committee of Public Health.

SEVENTEENTH ANNUAL REPORT OF THE BOARD OF CENSORS, INCLUDING REPORTS OF THE STATE BOARD OF MEDICAL EXAMINERS AND COMMITTEE OF PUBLIC HEALTH.

SUMMARY OF CONTENTS.

PART 1. THE REPORT OF THE BOARD OF CENSORS. The Work of the State Association—The President's Message—The Reports of the Vice-Presidents—The Report of the Secretary and the Book of the Rolls—The Report of the Publishing Committee—The Report of the Treasurer and the Book of Accounts—The Roll of the Correspondents—Delinquent County Societies—Report of the Committee on Doctors' Home—Ordinance in Relation to the Doctors' Home—Report of the Committee on Library and Museum—Report of the Committee on Contract Practice—Ordinance in Relation to Contract Practice—The Revision of the Minutes of 1889—The Case of Dr. W. C. Cross—The New Edition of the Book of the Rules—Amendments to the Constitution—Section 4078 of the Code—The Case of Brooks vs. State—Association Banquets—Neglect of Duty by the Officers of the County Medical Society—Medical Ethics and the Appointment of Monitors.

PART II. THE REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS. The Work of the State Board of Medical Examiners—Dollar Dues for Examination Papers—The Preliminary Examination of Medical Students—The Work of the County Boards of Medical Examiners.

PART III. THE REPORT OF THE STATE BOARD OF HEALTH. The Work of the State Board—The Establishment of Licensed Grave-Yards—The Education and Examination of Midwives—The Work of the County Boards of Health.

PART IV. SUPPLEMENTARY PAPERS. The Interstate Quarantine Act.

PART I. THE REPORT OF THE BOARD OF CENSORS.

THE WORK OF THE ASSOCIATION.

In regard to the work of the Association we can not find any thing which seems to us to be more fitting to be urged on the attention of members, than the remarks made under this head in our Report for last year. These remarks are therefore here subjoined:

The Medical Association of the State of Alabama continues to prosper. The individual county societies have their ups and downs, which for the most part depend on the efficiency or inefficiency of their officers—especially upon the presidents of the societies and the presidents of the boards of censors. This is in accordance with the general law governing all sorts of organizations. A good general makes a good army. A good pastor makes a prosperous congregation. In the application of this principle to our county societies it is the part of wisdom to keep a good and efficient officer for several terms, or indefinitely, when a good officer has been found. It is a mistake to insist too much on rotation in office for the purpose of distributing the honors as widely as possible amongst the members.

The presidents of the state association can add greatly to the efficiency of the presidents of the county societies, and therefore to the prosperity of the county organizations over which they preside, by keeping up a constant correspondence with these officers in regard to the details of their work; and every president of the association should engage earnestly in this sort of supervision from the very beginning of his administration. In a word, he should take command of his army promptly and should seek to promote the discipline and efficiency of all the regiments and companies composing it. We desire to invest these suggestions with all possible emphasis, because it is important that our presidents should appreciate very thoroughly the extent and character of their official duties and obligations. Discipline and organization are the miraculous words that insure success. To construct out of the scattered members of our profession a powerful organization and through this to secure concert of action and the prevalence of wise and prudent counsels is the great and abiding mission of our association. These things our presidents, as our commanders in chief, and our vice-presidents as commanders of divisions, should always bear in mind, and assiduously endeavor to accomplish. We have made much progress; but much still remains to be done. Many of our county societies are still weak and inefficient, and these stand in need of all possible encouragement, and should be a helped in all available ways.

Many of the doctors of the state—some hundreds of them—have not become members of their county societies. This state of things is unfortunate both for them and for us; and persistent effort should be made to bring them all into the common fold. Every doctor in the state should be made to feel that membership in his county society is a duty not to be lightly neglected—an obligation not honorably to be avoided. It is true that membership in a county society brings with it some inconveniences, some loss of time, and some expense; but the aggregate of these burdens is not large; and every physician should claim it is a a privilege to carry his share of the load.

THE PRESIDENT'S MESSAGE.

We have duly considered the president's message, and find it to be an admirable discussion of the business and policy of the association. The sketch he gives of the progress of the association is well calculated to excite feelings of gratification in all of us, and especially in those old members whom he aptly terms the Old Guard, the members who laid the foundations of our organization a score of years ago, and who, with unselfish expenditure of time and money and thought have fought its battles, labored for its aggrandizement, and made it what it is.

His discussion of the discipline of the county societies is timely and suggestive, and should receive the thoughtful attention of all who are concerned in the issues presented, especially of the presidents and the vice-presidents of the county organizations. If the officers are inefficient and negligent of their duties not much can be expected from the privates in the ranks. This part of the message is in agreement with what we have said ourselves in another part of this report.

We are also in agreement with the president in what he has to say about rotation in office. Every man is not equally fit to fill every office, and whether in the state association or in the county societies, if we get an efficient officer it is, as a general rule, good policy to continue him in office as long as circumstances will warrant it. It takes the majority of our officers almost an entire term of office to get familiar with their duties—to find out what they ought to do and how to do it; and

just when they have learned enough to make themselves efficient the time comes for a new election, and they have to step down and out, to be succeeded by new men no more competent than they were in the beginning of their administration. In this way experience is set aside as an unimportant qualification. These suggestions are specially pertinent in regard to the presidents and the vice-presidents of the state association, and of the county societies. There is no doubt that we have had too much rotation in office.

The remarks of the president on the collection of vital statistics are the result of some practical experience in that sort of work. He is one of the men who helped to bring about that admirable condition of things which for a long time made Bullock the banner county of the state. On this account what he has to say is all the more worthy of consideration.

The sanitary suggestions of the message in regard to drainage and meteorology belong to the *res adjudicata* of sanitary science; and call for no special consideration from us.

The president very ingenuously confesses the mistake he made in the selection of subjects for the regular reports, or rather his failure to select proper subjects, or any subjects at all for the regular reports. For it is evident from his statement that he selected the reporters and allowed them to select their own subjects. The consequence has been that hardly any of the papers read at this session of the association, as regular reports, have been of such character as to belong properly to that order of business. They might very well have come in as volunteer papers, but not as regular reports. This is not the first time this mistake has been made, but heretofore it has hardly been made in such wholesale fashion. It is always possible to find fitting subjects for regular reports. They need not be many in any one year, but they should be carefully selected by the president in view of the circumstances of time and occasion; and then he should hunt up the reporters.

We have taken advantage of this occasion to call emphatic attention to this important matter, with the hope that our

future presidents may guard themselves against making similar mistakes.

THE REPORTS OF THE VICE-PRESIDENTS.

According to the present plan of work in the association, the vice-presidential office is a most important one. In actual practice it has borne good fruit, but it has not come up to the full measure of usefulness which we have expected of it. We have reason to feel grateful to our vice-presidents for what they have accomplished; but we are very anxious that they should realize more fully the influence they have it in their power to exercise for the well-being of our organization. From this point of view we feel constrained to repeat what we said in this regard in our report for last year:

We have carefully considered the reports of the vice-presidents; and are sorry to feel it to be our duty to state that they do not come fully up to the high standard of excellence which we are anxious to see established as characteristic of these reports. They are, to some extent, lacking in that fullness and freshness of information in regard to the status and work of the various county societies which should come as the natural results of active and unceasing supervision of the societies from one year's end to another.

We do not make these strictures from any desire to censure the vice-presidents who have been in charge of the societies during the past year. But because the plan for the utilization of our vice-presidents is still new, and perhaps not generally appreciated at its full value; and we consider that it is very desirable that said plan should be carefully fostered, and developed to its fullest possible extent.

We expect a great deal of our vice-presidents—a great deal more than is expected of the vice-presidents of any other medical organization. Indeed, we expect a great deal of all of our officers. This is the secret of our power and prosperity. We have a great army to discipline and train to efficiency in the discharge of most important public functions. Of this army the president of the association is the commander in chief, while the two vice-presidents are the commanders of its two grand divisions—commanders in the field—commanders on active duty. It is their business to make history—to look constantly after the welfare, and the efficiency, and the discipline of the regiments under their respective commands; that is to say, it is their business to foster and encourage and direct the county societies in their work. This can never be accomplished by waiting until near the close of the official year, and then, gathering such facts as can be had in response

to a few hasty letters, and making these facts the basis of the annual reports.

The vice-presidents may work through any channels that are open to them; but they are expected to rally to their assistance in a very special way the vice-presidents of the county societies. If they did no more except to train these sixty-six county officers to active effort and efficiency they would accomplish a great deal.

Let us say to our vice-presidents again, and again, and again, with reiterated emphasis, that they are expected to make history as well as write it. They are expected to describe the status of the societies; but they are, also, expected to be bona fide leaders in the great work, and to tell us what they themselves have been able to accomplish.

It may be said that such a construction of the duties of the vice-presidents will impose so much work upon them that no body can afford to take the office. It will impose work upon them. The work ought to be done, and they are selected to do it. The offices of this association are not intended to be sinecures. But the work assigned to the vice-presidents is not more than they can afford to do; and if they do it well the consciousness that they have contributed something to the progress of the profession will be their sufficient compensation.

> Rewards cleave to deserts,
> And power to him who power exerts.

For a few years the work needed for the thorough organization of the county societies will be attended with special difficulties, and sometimes it will be irksome and unpleasant. Nevertheless it is necessary that it should be done. Those who hold official positions in the association now have to drill the raw recruits. Those who follow us after a few years will have thoroughly drilled soldiers to fight their battles with.

It is very much to be regretted that neither one of our vice-presidents are in attendance at this session. Of course there are, in both cases, good reasons for their absence. But the vice-presidency of this association is so high, so honorable, and so important a position that the presence of these officers at

the annual meetings is indispensable to the successful conduct of our business, and their absence is to a corresponding extent to be deprecated. It is the duty of each of them to make a special report for every county in their respective divisions. But both of these reports show that several counties in each of the divisions have not been heard from. This sort of failure ought not to have occurred. They should have found some way to reach every one of these counties. Those that were most difficult to deal with were precisely those that needed most the aid the good offices and the fostering care of the vice-presidents; and the interests of the association imperatively demand that the vice-presidents should be held to a high measure of efficiency in the discharge of their official duties. As an additional means of securing this consummation, so devoutly to be wished, we recommend the adoption of a new rule, as follows:

It shall be the duty of the vice-presidents to report to the president of the association, at the end of every month, a written statement of the details and progress of their work.

THE REPORT OF THE SECRETARY AND THE BOOK OF THE RULES.

We have duly examined the Secretary's Report and recommend that it be approved by the association.

We have also examined the Book of the Rolls and find it substantially written up to date.

THE REPORT OF THE PUBLISHING COMMITTEE.

We have duly considered the report of the Publishing Committee, and find it satisfactory. We therefore recommend that it be approved by the association.

THE REPORT OF THE TREASURER AND THE BOOK OF ACCOUNTS.

We have examined the Treasurer's Report, with the accompanying vouchers, and find the same to be satisfactory. We therefore recommend that it be approved by the association.

We have also examined the Book of Accounts, and find it written up to date.

THE ROLL OF THE CORRESPONDENTS.

We have duly considered the matter of the revision of the roll of correspondents. So far as we have been able to learn none of our corresponding members have died during the course of the past year, so there are none to be struck from the roll. We have one name to recommend as an addition to the roll, Dr. Jno. R. Hoffman of Athens. He has served the required ten years as counsellor and is entitled to the position.

DELINQUENT COUNTIES.

At the last revision of the roll of the county medical societies, all of the counties were accounted for in a satisfactory way and passed except Marion. From the society of this county there was no delegate present and no report from it had been received by the secretary. It was accordingly referred to the Board of Censors for investigation. Subsequently the report was received. The society is in fairly good order. We therefore recommend that the society be retained on the roll, and that we be discharged from the further consideration of the case.

THE REPORT OF THE COMMITTEE ON THE DOCTORS' HOME.

We have duly considered the report of the Committee on the Doctors' Home. We approve of the suggestions therein made; and in order that they may be carried into effect we have prepared and respectfully recommend the adoption of the following ordinance :

Be it ordained by the Medical Association of the State of Alabama, "That Drs. E. H. Sholl, Peter Bryce, M. C. Baldridge, B. J. Baldwin, and J. C. LeGrand be and are hereby created a board of trustees to be known as the board of trustees of the Alabama Doctors' Home.

(2) That it shall be the duty of the said board of trustees to have themselves properly incorporated under the laws of the state; to solicit donations and bequests in aid of said Doctors' Home, and to have the supervision and general management of

the same; and to report annually to the State Association a full account of their proceedings as a board of trustees.

(3) That the members of said board of trustees may be at any time removed from office by the president and board of censors of the Medical Association of the State of Alabama, without cause assigned, and that vacancies occurring in said board shall be filled by appointment of said president, by and with the advice and consent of said board of censors, each of said trustees to hold office until his death, resignation or removal.

(4) That if at the end of five years the amount of money obtained shall prove to be inadequate for the establishment of said doctors' home the trust hereby created shall terminate and be closed out, and any funds that may be on hand shall be paid by said board of trustees into the treasury of the State Medical Association for the uses of said association."

THE LIBRARY AND MUSEUM.

We have duly considered the report of the Chairman of the Board of Trustees of the Library and Museum. It seems to be inferable from this brief report that this Board of Trustees has never had a meeting for organization, a formality which it seems to us ought to have been complied with before a report was made.

In regard to getting the Charter of the Association amended so as to anthorize the issuance of bonds, that is a matter, the consideration of which had perhaps better be deferred for more mature consideration, especially as it is important for us in the approaching session of the General Assembly to concentrate all our efforts to secure the amendment of Section 4078 of the Code.

THE REPORT OF THE COMMITTEE ON CONTRACT PRACTICE.

We have duly considered the report of the Committee on Contract Practice. It is a subject of great difficulty and of great importance. We have not time now to go into a thorough discussion of all the issues involved. We may however be allowed to say very briefly :

That times have greatly changed in Alabama during the last twenty years. Before the days of railroads and great mining and manufacturing enterprises it was comparatively easy to enforce the traditional rule of the medical profession against contract and salary practice. It is not so now. Salaries more or less liberal are now offered by so many corporations and companies and have been accepted by so many doctors that longer persistence in the condemnation, in all cases and under all circumstances, of this sort of practice threatens the disruption of the profession of the state into two hostile camps. We can not think that this is desirable.

We can understand very well why the great railroad corporations desire to have their own surgeons in cases of injury resulting from railroad accidents. Then experience has shown that in many mining, manufacturing, and other industrial enterprises, the condition of things is such, that doctors are not able as a rule to collect compensation for their services unless some arrangement is made with the managers of such enterprises.

In a word, after a very mature consideration of the whole problem, we have reached the conclusion that some concession should be made so as to allow salary practice in such cases as those we have mentioned. At the same time we think the concessions proposed to be made in the scheme presented by the committee, are somewhat too sweeping. We have accordingly modified the Substitute for Section three of the Ethical Ordinances of the Association, page 222 of the Book of Rules; and in this modified form which here follows, we respectfully recommend its adoption by the association.:

Be it Ordained by the Medical Association of the State of Alabama, That section 3 of the Ethical Ordinances of the Association, page 222 of the Book of Rules, be modified so as to read as follows: He may practice for a stated salary for any railroad corporation so far as railroad accidents and injuries are concerned; for any mining or manufacturing establishment, but not to include the salaried officials and managers of such establishments; for state, county, or municipal educational and char-

itable institutions; and on plantations cultivated by tenants or hired laborers; and that all underbidding and soliciting under this system of practice shall be regarded as unprofessional and unethical in the same way, and to the same extent as in ordinary private practice.

THE REVISION OF THE MINUTES OF 1889.

On the discharge of the duty imposed upon us in regard to the revision of the minutes we have to report as follows:

(1) On the title page the place and date of the session are stated as follows: "Montgomery, April 9–12, 1889." It should be, "Mobile, April 9-12, 1889."

(2) On page 32 the title "Report of John Paul Jones, M. D. of Camden, Senior Vice-President and Junior Counsellor of the Medical Association of Alabama," should read, "The Report of the Senior Vice-President, By John Paul Jones, M. D., of Camden, junior counsellor of the Medical Association of the State of Alabama."

(3) On page 40 the title, "Report of Benjamin Franklin Cross, M. D., of Decatur, Junior Vice-President and Senior Counsellor of the Medical Association of the State of Alabama," should read, "The Report of the Junior Vice-President, By Benjamin Franklin Cross, M. D., of Decatur, Senior Counsellor of the Medical Association of the State of Alabama."

(4) On page 48 of the title, "The Eleventh Annual Report of the Secretary," should have the word "Eleventh" stricken out, and should read simply "The Report of the Secretary."

(5) Page 64, 66, 67, 68, 69 of the last volume of Transactions are devoted to a sketch of the business reports of the county societies. But this order of business has been expressly discontinued, was not called at the Mobile session, and is here out of place. Furthermore, the subjects that were included formerly under the head of Business Reports of county societies, have been expressly turned over to the vice-presidents of the association; and the details given in the six pages mentioned are not in correspondence with the title. These six pages therefore should not have been inserted in this place.

(6) These six pages, indeed, are not properly business reports at all. They contain such answers as might be given by the delegates on the last day of the session on the call of the county societies in the Revision of the Rolls.

(7) On page 74 the list of volunteer papers follows the list of regular reports, in the minutes of the second days proceedings. This list should have been inserted on page 79 in the proceedings of the third day, where the volunteer papers properly belong.

(8) In the Register there are a great many misprints of the names of members, which it would take too long to point out.

(9) On the Register a great many names, some of members of the county societies and some of doctors not members, have been omitted—certainly more than two hundred.

(10) In the Register on pages 170 and 171 there is an error that requires special mention. The two counties Crenshaw and Covington do not occur in alphabetical order, but have been made to change places.

THE CASE OF DR. W. C. CROSS.

We have duly considered the statement made by Dr. W. C. Cross in regard to the circumstances under which he was dropped from the Roll of Counsellors at the last Mobile session of the association. It is evident that at that time he was not engaged in contract practice, although he was preparing so to do. He claims also that he ought not to have been dropped for unprofessional conduct without having been allowed to have a chance to defend himself. For these reasons we recommend the adoption of the following resolution :

Resolved, That, inasmuch as Dr. W. C. Cross was not actually engaged in contract practice at the time of the session in Mobile last year when he was dropped from the Roll of the College of Counsellors for that specific offense, the vote by which he was dropped be and is hereby reconsidered and rescinded ; and that his resignation then tendered be now accepted.

THE NEW EDITION OF THE BOOK OF THE RULES.

Under the instructions of this board and in accordance with an ordinance of the association, during the past year the Senior Censor has compiled and published a new edition of the Book of the Rules. The revision was a work of considerable labor, and has been very thoroughly done, so that in every one of its five chapters the book is now fully up to date.

Some changes and additions were made in the ordinances, all along the well established lines of our accepted policy, but without any express authorization from the association. These changes and additions are as follows:

(1) When the rose badge was adopted for every day wear, it was agreed that a white rose should be worn by the junior counsellors, a yellow rose by the senior counsellors, and a red rose by the grand senior counsellors. There were and are good and sufficient reasons for this arrangement. But it put counsellors to some expense and inconvenience in passing from one grade to another, and it seemed, in consideration of these facts, that it might be best to abolish these minor distinctions, and allow a rose of any color to be worn by a counsellor of any grade. We trust that what has been done in this regard will meet with the approval of the association.

(2) In 1893 all of the original counsellors of 1873 will be passed to the grade of grand senior life counsellors, and will then become entitled to another decoration. The design for this new decoration has not yet been agreed upon; but the senior censor has ventured to suggest a general outline of a design for such badge. He will fill out the details and submit the design for the approval of the association before the new badge will be needed.

(3) We have inserted in the chapter relating to the public health sections on the management of diptheria, scarlet fever, typhoid fever, small pox, and consumption. Also, the rules for the transportation of dead bodies, and for the use of disinfectants.

All of the changes and additions are, we believe, of a char acter not to excite any differences of opinion; and in order in the simplest way to remove all chances for doubt or cavil, we move the adoption of the following ordinance:

Be it Ordained by the Medical Association of the State of Alabama, That the new edition of the Book of Rules, bearing date 1889, and as presented to the association by the Board of Censors, with all its constitutions and ordinances, and all its commentaries and explanations, be and is hereby adopted for the guidance of all the medical societies and boards of health under our jurisdiction.

The expenses connected with the publication of this new edition of the Book of Rules are as follows:

Book of the Rules, 1,000 copies complete, of 243 pages, printing and binding	$450 00
2,000 Circulars	2 50
Postage on Circulars	15 00
Postage on 236 copies of Book of Rules at 11 cents each	25 96
Making a total of expenses	$493 46

Of these expenditures the bill for printing and binding was paid by the State Medical Association.

The expenditures for postage and circulars were paid by the State Board of Health, and aggregate the sum of $43.46, which amount should be refunded out of the proceeds of the sale of the book to the State Board of Health.

Number of copies sold 236, which at 50 cents each, amounts to 118.00 dollars.

After payment of 43.46 dollars to the State Board of Health this will leave on hand 74.54 dollars.

AMENDMENTS TO THE CONSTITUTION.

It has been proposed to amend Article 51 of the Constitution so that it shall read as follows:

ART. 51. The board of censors shall hold such meetings concurrently with the annual sessions of the association, and also from time to time such special sessions, to be called by

the president of the board, as the business they have on hand may seem to require; and the number of censors present at any session shall constitute a quorum. During the intervals between the sessions of the association the board of censors shall be the authorized agents of the same in all matters pertaining to its general welfare; and may from time to time present for the consideration of the association such suggestions and recommendations as to them may seem advisable.

We have duly considered this proposed amendment to the constitution, and are prepared to recommend its adoption. The vote, however, cannot be taken at this session of the association.

SECTION FOUR THOUSAND AND SEVENTY-EIGHT OF THE CODE.

Soon after the publication of the Code of 1886 it was found that the section of the previous Code of 1876, prescribing a penalty for the violation of the law to regulate the practice of medicine had been but very imperfectly incorporated in the corresponding section of the new Code—the section numbered 4078. This section reads as follows:

§ 4078 (4243). *Dealing in drugs, or practicing medicine without license from medical board.*—Any person practicing medicine or surgery, or engaging in the business of a druggist, or dealer in drugs or medicines, without having first obtained a license, or diploma, or certificate of qualification, or not being a graduate of a medical college of this state, having had his diploma legally recorded, must, on conviction, be fined not more than one hundred dollars.

There can be no doubt that the codifier, in preparing this remarkable section, intended to change the law, there being nothing in the old Code in anyway relating to graduates of medical colleges of this state. But with all the imperfections of this statute we succeeded in convicting under it all cases brought before the circuit courts. A few months ago a case was tried in Russell county—the case of Dr. S. W. Brooks. He was convicted by the circuit court, and appealed to the

supreme court, which reversed the decision rendered by the court below. The decision of the supreme court here follows:

BROOKS *v.* THE STATE.

Indictment against Unlicensed Physician.

1. *Constitutionality of statutory provisions regulating practice of medicine.*—The statutory provisions regulating the practice of medicine in this state, giving to the county commissioners power to appoint a board of medical examiners, with authority to examine and grant licenses to applicants, if there is in the county no medical society in affiliation with the State Medical Association, but further providing that their authority shall cease so soon as such county medical society may be organized, and confiding to such society the exclusive right and authority to examine and license, according to "the standard of qualification, the method or system, and the subjects of examination prescribed by the State Medical Association," (Code, §§ 1296-1307), is a valid exercise of the police power, and is not violative of any constitutional provision or principle.

2. *Practicing medicine without license, under foreign diploma.*—Under the statute which makes it a misdemeanor, punishable by fine, for any person to practice medicine or surgery "without having first obtained a license, or diploma, or certificate of qualification, or not being a regular graduate of a medical college of this state, having had his diploma legally recorded" (Code, § 4078), a conviction can not be had against a person who has procured a diploma from a regular medical college in Georgia, and has had it recorded in the county in which he is practicing his profession, and in which there is a county society in affiliation with the State Medical Association.

From the Circuit Court of Russell.

Tried before the Hon. JESSE M. CARMICHAEL.

The defendant in this case, Dr. S. W. Brooks, having procured a diploma from a regular medical college in Georgia, came into Russell county, Alabama, in April, 1889, and there began to practice medicine, having had his diploma recorded in the office of the judge of probate. At that time, there was a county medical society in Russell, in affiliation with the State Medical Association; and Dr. Brooks not having gone before its board of censors for examination, license, or certificate of qualification, the indictment in this case was found against him, for practicing medicine in violation of section 4078 of the Code. The court charged the jury, if they believed the evidence, they must find the defendant guilty; to which charge the defendant excepted.

GEO. P. HARRISON, for appellant.

WM. L. MARTIN, Attorney-General, and TOMPKINS & TROY, *contra.*

STONE, C. J.—There can be few questions, if any, more clearly with-

in the police powers of the government, than the conservation of the public health. On this power rests all the doctrine of quarantine, of pest-houses, of compulsory vaccination, of sanitary sewerage, of many forms of public nuisance, and many other acts of precaution, not necessary to be enumerated. And a learned and qualified membership of the medical profession is one of the confessed agencies in protecting the public against the dangers of charlatanism. To prescribe rules and tests for the ascertaiment of the qualifications of applicants for authority to practice medicine as a livelihood, is clearly within the scope of legislative power.—Cooley Const. Lim. (5th Ed.), 722; *Dent v. West Va.*, 129 U. S. 114; *McDonald v. State*, 81 Ala. 279; 60 Amer. Rep. 158; *N., C. & St. L. R. R. Co. v. State*, 83 Ala. 71; *L. & N. R. R. Co. v. Baldwin*, 85 Ala. 619. Tideman, Limitations of Police Power, § 87, doubts this doctrine, but we can not agree with him. We do not place the state's right and power in the premises on the ground of benefit or privilege conferred on the physician. It stands on the higher plane of protection to the public against the consequences of ignorance and quackery. Nor do we think there is any thing in the objection, that by the terms of the law its provisions take effect in any given county, only when there is a medical society organized in such county, in affiliation with the Medical Association of the State, as declared by the act approved February 9, 1877.—Sess. Acts, 80; Code of 1886, §§ 1301 *et seq.* We are not able to perceive any difference in principle between the statute under discussion, and the stock laws and local-option statutes, so frequently brought before us for determination.—*Dunn v. Court of County Comm'rs*, 85 Ala. 144.

We find nothing in the civil aspects of the statute which offends the State constitution.

The violation of the statute we have in hand is, however, not an offense which the law characterizes as *malum in se.* It is only *malum prohibitum*, or a wrong only because the law prohibits it. Such violation of law is not, without more, an indictable offense. Says Mr. Cooley—Const. Lim. (5th Ed.), 745—"Whether the prohibited act or omission shall be made a criminal offense, punishable under the general laws, or subject to punishment under municipal by-laws, or on the other hand, the party be deprived of all remedy for the right, which, but for the regulation, he might have had against other persons, are questions which the legislature must decide." So, however much the legislature may enjoin certain duties, or interdict certain omissions of duty, unless the duty commanded, or the act prohibited, would amount to an indictable offense independent of the statute, no indictment can be maintained, unless the statute expressly authorizes it.

Section 4078 of the Code of 1886 is the statute under which it is claimed the defendant was rightly convicted. It stands in the place of section 4243 of the Code of 1876, but is materially different from it. It

declares, that any person practicing medicine or surgery, except in one of four named categories, "must on conviction be fined not more than one hundred dollars." There is no other statutory provision bearing expressly on this aspect of the case. The enumerated categories, which the statute excludes from its operation, are: first, that the physician or surgeon has first obtained *a license;* or, second, that he has obtained *a diploma;* or third, that he has obtained *a certificate of qualification;* or, fourth, that he is *a regular graduate of a medical college of this State, having had his diploma legally recorded.*

It was proved that, before defendant entered upon the practice of medicine in Russell county, there was organized in said county a county medical society, in affiliation with the Medical Association of Alabama, as provided by section 1301 of the Code of 1886, and that said county medical society had kept up its organization. The state proved a *prima facie* case against the defendant, and rested. The defendant then read in evidence a diploma from a regular medical college in the state of Georgia, and proved that he had had said diploma recorded in the office of the judge of probate of Russell county, before he entered upon the practice of medicine. The defendant was convicted—the court instructing the jury to find him guilty, if they believed the evidence.

By an examination of the Code of 1886, beginning with section 1296, it will be seen that under our statutes, there are two organizations, or systems, under which physicians may obtain authority to practice their profession. The one system is by license from a medical board established by the court of county commissioners, for the county in which the applicant proposes to practice.—§§ 1296, 1297. Under that system, "A regular graduate of a medical college in the United States, having a diploma," and having that diploma properly recorded, "is entitled (without license) to practice medicine, in a county having only a medical board established by the court of county commissioners."—§ 1298. Authority to practice medicine under the foregoing provisions is, however, limited to counties "in which there is no board of medical examiners organized in accordance with the constitution of the Medical Association of the State of Alabama, and in affiliation with the association; . . . But the existence and authority thereof must terminate whenever a board of medical examiners is organized in the county in accordance with the constitution of the Medical Association of the State, and in affiliation with the association." When such board of examiners is organized in any county, then a license or certificate of qualification from such board is a pre-requisite to the right to practice medicine in that county, with certain exceptions not raised by this record. Having a diploma from a medical college of this state, legally recorded, is not named as an exception. Hence, consulting only the language of the statute, it would seem that even a graduate of a medi-

cal college in this state, is not allowed to practice his profession in a county having a medical society in affiliation with the State Medical Association, without first obtaining a certificate of qualification, to be recorded as the statute prescribes.—Code, §§ 1302, 1306. This is the second system for obtaining authority to practice medicine, and supplants the other whenever it is in exercise.

The language of the penal enactment, § 4078, as we have shown, excludes from its operations four specified categories. The second of the categories expressly excepted is, "not having first obtained a diploma." Brooks had first obtained a diploma, and, therefore, if we consult only the penal section, unaided by other provisions, his case does not fall within it. We are not permitted to say that the word *diploma* first mentioned in this section, and copied above, must mean a diploma from a medical college of the State of Alabama, for the fourth exception makes express provision for just such case. If exception two and exception four cover the same ground, why duplicate the expressions, and why require a record to be made in one case, and not in the other? If it be objected that the interpretation we propose leads to the absurdity of requiring an Alabama graduate to record his diploma, and excuses graduates of other medical colleges from doing so, our answer must be, that we are dealing not with our own language, but with the language of the statute as it is written.

It is contended in favor of the ruling of the Circuit Court, that we must interpret the penal section in the light of the statute found in the civil part of the Code—§ 1296 *et seq.*—and hold that, under its very general provisions, an indictment will lie for practicing medicine without conforming to what that somewhat comprehensive statute has enjoined as pre-requisite duties. And, carrying out this idea, it is claimed that we must so construe the statute as to make its provisions applicable to every departure from statutory requirements, whether the breach be committed in a failure to obtain authority from one board of examiners, or the other; that practicing medicine "without a license," or "without a diploma," must refer to counties which are without a board of medical examiners, in affiliation with the Medical Association of the State, while the other two exceptional provisions refer to counties in which there is such board.

It would, as a general proposition, be dangerous to apply such liberal rules to the interpretation of penal enactments. When the legislature enjoins several duties, some of graver, and others of minor importance, and then declares that a breach of the graver of those duties shall constitute an indictable misdemeanor, and fails to make a similar declaration as to the others, to assume that they meant more than they expressed would be treading on dangerous ground. To undertake the practice of medicine without a diploma, without a license, and without a certificate of qualification, is certainly a graver offense to society and

its well-being, than to assume to practice by virtue of a medical education and diploma from a college outside of the State of Alabama, or to omit to have that diploma recorded. We cannot know that the legislature intended further than they have expressed their intention.

There is a stronger reason why we can not adopt the interpretation contended for. Under the provisions of the civil part of the statute, only certain expressed classes of persons can, without examination, obtain certificates of qualifications, from examiners acting in affiliation with the State Medical Association; and such certificate—not the diploma—must be recorded.—Code, §§ 1305–6. There is no provision authorizing graduates of an Alabama Medical College to practice medicine without a certificate of qualification, or which entitles them to such certificate on the mere production of a diploma. Yet it is clearly not an indictable offense for "a regular graduate of a medical college of this State, having had his diploma legally recorded," to engage in such practice. This demonstrates that the penal section, 4078, is not co-extensive with what are called the civil provisions.

The judgment of the Circuit Court is reversed, and inasmuch as the defendant can not, under the facts of this case, be convicted, the cause will not be remanded. Let the defendant be discharged.

It will be seen that in this decision all the points raised against the constitutionality of the medical law as it stands in the civil code were overruled; and to this extent the decision is a great gain to us. In one word, the constitutionality of the law is fully established. The only trouble there is attaches to the penal section in the criminal part of the code, which, according to this decision, provides no penalty for violation of the law. Dr. Brooks is an illegal practitioner, but he can not be criminally punished.

This decision opens the way for incompetent doctors to practice medicine in this state without examination, and to a certain extent its consequences will be mischievous. In the meantime it has not rendered the law inoperative. Our examining boards in various parts of the state are conducting examinations about as usual. No honorable physician can afford to practice in violation of the law, and especially he can not afford to do so when such practice brings him under the ban of the profession.

Ignoramuses and quacks, however, whose sense of honor is very elastic, and who care very little for professional reputa-

tion and recognition, will from time to time impose themselves upon the people as long as they are allowed to enjoy immunity from a criminal prosecution.

It, therefore, becomes expedient that the medical association of the state, as representing the medical profession of the state, and the state board of health, as representing the sanitary welfare of the people, should appeal to the next session of the general assembly to make such amendment of section 4078 of the code as will enable the courts to enforce against all who violate the law to regulate the practice of medicine the penalty as it stands in the code of 1876.

To this end we recommend the adoption of the following resolutions:

Resolved, (1) That we urge upon all of the county medical societies in affiliation with this association, and upon their individual members the importance of using their utmost influence with the members representing their respective counties in the next session of the general assembly, to secure such amendment to section 4078 of the code of 1886 as will restore the law to regulate the practice of medicine to its original integrity.

Resolved, (2) That the board of censors of this association are hereby instructed to prepare for presentation to the next session of the general assembly such memorial as to them may seem best suited to secure the change desired in section 4078 of the code; and to take such other measures as may seem to them expedient in order to accomplish the object we have in view.

ASSOCIATION BANQUETS.

In every city in which the association holds one of its annual sessions it has become almost a matter of course that the resident physicians shall entertain the association at a banquet. Formerly this was not found to be a very great hardship. But the association has now grown so large and the annual sessions are so numerously attended that association banquets are felt as no light burthens even in our larger cities, and in other places have become practically impossible.

We can not afford to be burthensome to our friends in this way; and the time has certainly come for a change in our policy in this regard. In most countries association banquets are paid for by those who choose to attend them, and we suggest that this is the plan upon which should be given all future banquets of the Alabama State Medical Association. To this end we recommend the adoption of the following ordinance:

ORDINANCE REGULATING BANQUETS.

Be it ordained by the Medical Association of the State of Alabama, (1) That at every annual session of the association every member, counsellor, or delegate, who desires to participate in a banquet shall deposit with the committee of arrangements the sum of five dollars as his contribution to the banquet fund.

(2) That if by the end of the second day of the session there are as many as twenty paid subscriptions, then the committee of arrangements shall order a banquet with as many seats as there are paid subscriptions—the said banquet to be held on the evening of the third day of the session.

(3) That if by the end of the second day of the session the number of paid subscriptions is less than twenty, then the money must be returned to the subscribers, and there shall be no banquet.

THE NEGLECT OF DUTY BY THE OFFICERS OF THE COUNTY MEDICAL SOCIETIES.

In many of our previous reports we have emphasized the great importance of thorough discipline in the county medical societies, with a view to investing them with the largest possible degree of efficiency. We are glad to be able to say that in a general way the discipline of the county societies has improved very decidedly. This is specially true of the older societies. But notwithstanding all this improvement very few of the societies even now appreciate in any adequate fashion the privileges and responsibilities that rest upon them. The

principle part of this trouble grows out of the neglect of their official duties by so many of the officers of the societies.

The presidents are only beginning to understand that their authority extends over all the members and over all the subordinate officers of the societies; and that in some sense they are responsible for the entire conduct of their societies. Any one who accepts the position of president of a county society, and then allows his society to drift at the mercy of the winds and waves of circumstances is not worthy of the position and its honors. The societies should elect to be presidents none but their best men; and having found good presidents should be very slow to change them for untried men. When a military company gets a good captain it is good policy to keep him; and in the same way it is good policy for a county society to keep a good president when they are fortunate enough to get one.

But of all the officials of our county societies the vice-presidents are the most negligent of their duties. As a rule the majority of them seem to think that they have no duties, and that their position is purely honorary, without duties, and without responsibilities of any sort. This is a mistake, at least so far as our organization is concerned. The vice-presidents are second in command and should assiduously strive to hold up the hands of their chiefs. Besides other duties it has been made specially obligatory on the vice-presidents of the county societies to co-operate with the vice-presidents of the association in the discharge of the important duties which our rules impose upon them. Just now there is no weaker link in the chain of our organization than this negligence of duty on the part of the vice-presidents of our county societies; and it is for this reason that we call special attention to it, with the hope that our vice-presidents will endeavor to make themselves more useful.

The secretaries perhaps approximate more nearly to the discharge of their duties than any of the other officers; but they, too, are too often negligent, keeping their records imperfectly, and sending up imperfect reports to the state association.

MEDICAL ETHICS.

All American doctors give in their adhesion as a matter of course to the code of ethics of the American Medical Association; and all of them recognize in a general way that the said code is full of lofty morality and worthy of the most unqualified admiration—as worthy, indeed, of more than admiration—worthy of unquestioning and thoroughgoing obedience. In a word, it is the accepted law of the profession, and as binding on the professional conscience as the ten commandments.

There are two sorts of faith—faith explicit, and based on direct articulate knowledge; and faith implicit, which is based on indirect and incidental considerations.

In all cases and under all circumstances, we are all willing to bow to the authority of the ethics. But very many of us very often would find ourselves at a loss off-hand to tell which of two opposite opinions on a given question is in harmony with the teachings of the ethics. In a word, a great many of us are not so familiar as we should be with either the letter or the spirit of the ethics.

It has occurred to us that any plan or device which would tend to bring the ethics home to the minds and consciences of the members of the profession could not fail to bear good and desirable fruit; and in consonance with this impression we venture to make two recommendations.

(1) That the president of the state association shall annually appoint a monitor, whose duty it shall be to read at every annual session of the association an essay on the ethics, or some part of the ethics, of the American Medical Association, said essay to have place just before the regular reports.

(2) That this association recommends that the president of every county medical society shall appoint annually a monitor, whose duty it shall be, at least once within the year, to read an essay on the ethics of the American Medical Association; and whose further duty it shall be to watch over the ethical welfare of his society, and to call attention from time to time, to such special teachings of the ethics as may seem to require elucidation in view of special circumstances and occasions.

PART II. THE REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS.

For the year 1889 we have received from the county boards of medical examiners seventy-seven (77) sets of examination papers. Of these one is preliminary to the study of medicine, and the result was the granting of the certificate. The examinations for the practice of medicine number seventy-six, of which seventy-one were successful, and five unsuccessful.

Three examinations were conducted by the state board as follows:

Lincoln Laconia Burwell, M. D., (colored) Leonard Medical College, North Carolina, 1889. Certificate granted.

Charles W. Sheppard, an under graduate. Certificate refused.

Joshua D. Terrill, M. D., Ohio Medical College, 1885. Certificate refused.

Dr. Burwell's examination was good in all the branches. Dr. Sheppard made a very complete failure in all.

Dr. Terrell had been previously examined and rejected by the Mobile county board. The state board found it impossible to pass him.

SPECIMEN QUESTIONS.

Some of the critical suggestions made by members of the board in reviewing the several sets of examination papers, are given here out of connection with the papers to which they relate, with the hope that members of the county boards may derive some useful lessons from them:

(1) Here is a question defective in two ways: "The anatomy of the respiratory organs." It has no verb; and it is too comprehensive. It would take a treatise to answer the question adequately.

(2) Another example: "Give the anatomy of the alimentary canal, its divisions in their order, beginning at the mouth, and the specific functions of each." There are many

objections to this question; it is too comprehensive, requiring too much time and too much writing to answer it; and it mixes up anatomy and physiology.

(3) Another example: "Describe the bones of the lower extremities with their articular connections." When it is remembered that there are over thirty bones in each lower extremity the absurdity of the question is glaringly apparent.

(4) Another example: "Origin and distribution of the cranial nerves." There is no verb in the sentence, and a treatise would be required to answer it.

(5) Another example: "Give the origin and insertion of the psoas muscle." The applicant very properly asks, which psoas muscle?

(6) Another example: "Give presentations, positions, and the mechanical changes that occur during the passage through the different stages of natural labor." A complete answer would fill a book. And, then, the passage of what?

(7) Another example: "What are the duties of a physician when called to a supposed case of labor?" Answer, "To go at once fully prepared to meet the emergencies." The answer deserves a hundred, and yet is worth nothing.

(8) Another example: First question; "If you were called to a case of suspected poisoning what would be your duty." Second question; "How would you examine the stomach?" To this last the answer is, "A T shaped incision should be made over the stomach and the entire stomach removed for examination." If there was some chance for the patient to outlive the effects of the poison, there would be little of his outliving the doctor's treatment.

(9) Another example: "Proper clothing?" It can be inferred that the question relates to the proper clothing of infants; but if only five questions are to be submitted on hygiene it would seem that a better one than the above could be selected. To answer it does not require any strictly professional knowledge.

THE PRELIMINARY EXAMINATION OF MEDICAL STUDENTS.

One of the plans for the improvement of the profession which this association has had very much at heart since the reorganization in 1873, is the preliminary examination of medical students. In our annual reports frequent attention has been called to this matter, but the results accomplished afford but little ground for congratulation. Very few preliminary examinations have been made—so far as the records of this board show not more on an average than three or four per annum. In the meantime, the young men of the state have not ceased to study medicine and to attend medical colleges. We suppose that the average number of Alabama students who annually matriculate in the medical colleges is not less than fifty. The question, thefore, arises as to how these young men pursue their preliminary medical studies. They can not be taken as students by any of the members of our county medical societies, and these include in their membership more than two-thirds of the doctors in the state. At the same time a considerable number of the doctors who are not members of societies feel under obligation to observe our rules.

It would seem, therefore, that most Alabama medical students must go to the colleges without any preceptors, which certainly places them at a great disadvantage. It is important under any circumstances that young men engaged in the study of medicine should be under the guidance of preceptors. Even when the preceptors do very little in the way of teaching medicine, their students become more or less indoctrinated with the spirit of the profession, which in itself is an acquisition valuable not only to the student but to the profession also, by continuing from generation to generation the ancient habits and traditions—the conservative *morale* of the profession.

This is an evil that ought not to continue. Not only should the old preceptorial system be restored; but it should be restored in its full integrity. The preceptor should be a teacher in fact, and not merely in name, and should have adequate compensation for his trouble.

We do not very well see how the evils here indicated can be

corrected; but we have thought it worth while to call to them the attention of the profession.

STATEMENT OF DOLLAR DUES FOR EXAMINATION PAPERS.

We have received altogether, beginning with December, 1887, and coming up to the last day of March just past, in fees for examination papers the sum of one hundred and twenty-one (121) dollars, which is one dollar each for one hundred and twenty-one sets of papers.

During the same time we have expended the following sums:

For binding 152 sets of papers	$76 00
For book case	10 00
For expressage	6 95
Total of expenditures	$92 95

This leaves a balance on hand of twenty-eight (28) dollars and five cents. Thirty-one sets of papers were received without the fee, but were nevertheless bound like the others.

THE CASE OF DR. W. S. FOWLER.

W. S. Fowler, M. D., Chicago medical college, 1887. Certificate refused.

We have given this case special attention, for the reason that the applicant made a special appeal to the State Board of Examiners, in which he protests against the ratings given him in physiology, which ratings in some way came to his knowledge before he was notified of the results of his examination.

This protest was placed before the board at their session in Mobile last year; and was to some extent considered by them. But inasmuch as it was out of the power of the state board to change the decision of the board of Montgomery county; and inasmuch as in the regular course of their duties they would not report on these papers until the current session of 1890, the final consideration of it was deferred until that time.

An examination of the papers shows four questions in anat-

omy, the answers to which are valued respectively 10, 5, 00, 00, or an average valuation of 3.75.

In physiology the questions are four, and the answers are valued respectively 00, 00, 10, 25, an average of 8.75.

In the other eight branches the average valuations range from 71.50 to 88.50, and the final average of these eight branches is 78.75.

The questions in physiology are as follows: (1) Absorption? (2) Circulation? (3) Digestion? (4) Function of the eighth pair of nerves?

These are the facts, and upon them we have to remark:

(1) Such questions as "absorption? circulation? digestion? are not proper questions for a medical examination. They are too broad and too indefinite. There is absorption of solids, liquids and gases. There is cutaneous absorption, pulmonary absorption, gastric absorption, intestinal absorption, capillary absorption, lymphatic absorption, and many other kinds of absorption. Confronted with such a question the more the applicant knows the more he would be puzzled to know how to answer it. A similar criticism might be made in regard to "circulation," and "digestion."

(2) In our deliberate judgment the ratings of the answers to the questions in anatomy and physiology in this examination are entirely too low, and do great injustice to this applicant. The average valuation in these two branches should not simply have been much higher than those given, but should have been anywhere from five to ten times greater.

THE WORK OF THE COUNTY BOARDS OF MEDICAL EXAMINERS.

The county boards of medical examiners have made reports for 1889, as follows:

Autauga county board. For the study of medicine, none. For the practice of medicine—

Stonewall W. Jackson, M. D., Southern Medical College, Atlanta, 1889. Certificate granted.

On the part of the board this examination was not well done. There

are missing the supervisor's certificate, ratings of the separate answers in each branch, and the examination papers in the natural history of diseases, in physical diagnosis, and in medical jurisprudence. The questions in chemistry, and most of the questions in anatomy and surgery are very badly chosen—too elementary, and not calculated to test the capacity of the applicant.

The applicant did as well as could be expected under the circumstances.

Baldwin county board. For the study of medicine, none. For the practice of medicine, none.

Barbour county board. For the study of medicine, none. For the practice of medicine--

William R. Belcher, M. D., Southern Medical College, Atlanta, 1889. Certificate granted.

In years past this board distinguished itself by its good work and the good order in which its papers were sent up. In the examination of Dr. Belcher it has done itself no credit. The proper schedule is not used. There is no supervisor's certificate, and we can't tell whether there was a supervisor or not. The questions are too numerous, and must have been selected without due deliberation. There are twenty questions in anatomy, twenty-six in chemistry, thirty-four in physiology, twenty-six in surgery, and twenty-five in obstetrics.

The answers of the applicant in some of the branches are very poor, in others of only moderate excellence. No fee came with the papers.

Bibb county board. For the study of medicine, none. For the practice of medicine, none.

Blount county board. For the study of medicine, none. For the practice of medicine—

Felix A. Gillespie, M. D., Medical College of Alabama, 1889. Certificate granted.

George Washington Self, M. D., Medical Department of the University of Tennessee, 1889. Certificate granted.

In Dr. Gillespie's examination there are missing the application, the supervisor's certificate, the examination in chemistry, and the examination in mechanism of labor. The paper used varies greatly in size; and there was no fee. On the part of the applicant the answers are fair.

In the examination of Dr. Self all the schedule branches are included. The ratings alone are missing, but the supervisor's certificate is not in the prescribed form. The answers are fair. No fee.

These papers were not sent up until the meeting of the state association at Birmingham.

Bullock county board. For the study of medicine, none. For the practice of medicine—

Samuel Calvin Cowan, M. D., Medical College of Alabama, 1889. Certificate granted.

This examination is a thoroughly good one. It conforms strictly to the rules laid down, and the papers are neatly written and put together. It does credit both to the board and the applicant. The certificate was deserved. This applicant graduated on the 29th of March, and was not examined until September 14th following. Was he practicing during this time? and was the board during this time negligent of its duty?

Butler county board. For the study of medicine, none. For the practice of medicine—

Paul E. Carr, M. D., Atlanta Medical College, 1889. Certificate granted.

This is a fair average examination; but it embraces only nine of the schedule branches, and was allowed by the board to drag through a whole month, as may be seen from the following statement by the supervisor: "This examination extended from July 22nd to August 21st, and the supervisor feared that if he waited longer for more questions this examination would be hanging fire when Gabriel blew his trumpet."

Calhoun county board. For the study of medicine, none. For the practice of medicine—

George Allen Vinson, M. D., Southern Medical College, Atlanta, 1881. Certificate granted.

Lewis Jemison, M. D., University of Pennsylvania, 1858. Certificate granted.

James Henry McDuffie, M. D., University of Maryland, 1887. Certificate granted.

In the first and last of these examinations the clerical work of the supervisor was admirably done. Some of the questions in one or two of the branches are not well chosen. But taken all together both the board and the applicants have acquitted themselves with credit.

Chambers county board. For the study of medicine, none. For the practice of medicine, none.

There are two, or perhaps three, young physicians in this county who have applied for examination without getting it. This board, therefore, has been extremely derelict in the performance of its duty, and deserves severe censure.

Cherokee county board. For the study of medicine, none. For the practice of medicine, none.

Chilton county board. For the study of medicine, none. For the practice of medicine, none.

Choctaw county board. For the study of medicine, none. For the practice of medicine—

1332

Thomas A. Knighton, M. D., Louisville Medical College, 1889. Certificate granted.

In this examination the supervisor's certificate and the ratings are missing, and the fee has not been paid. The questions are, in the main, good ones. The answers are only moderate.

Clarke county board. For the study of medicine, none. For the practice of medicine—

R. V. Mobley, M. D., Medical College of Alabama, 1889. Certificate granted.

Sidney L. Pugh, M. D., Medical College of Alabama, 1889. Certificate granted.

These examinations were not based on the schedule of 1887, and, consequently, do not conform to the rules. The applications, supervisor's certificates, and ratings are all missing. And the fees remain unpaid. The applicants both acquitted themselves well.

Clay county board. For the study of medicine, none. For the practice of medicine—

George McDaniel Calloway, M. D., Medical College of Alabama, 1889. Certificate granted.

Richard Spencer Nolen, M. D., Kentucky School of Medicine, 1889. Certificate granted.

These are the first examinations made by this board, and they show many defects. There are no applications, no supervisor's certificates, and the old schedule which was superceded in 1887 is the one that is followed. The fees also are unpaid. Dr. Calloway's answers are fair. There is much crudity about the answers of Dr. Nolen. His spelling is bad. Both his literary knowledge and his medical knowledge are defective.

Cleburne county board. For the study of medicine, none. For the practice of medicine—

Robert Lee Neal, M. D., Southern Medical College, Atlanta, 1884. Certificate granted.

Lemuel Whitfield Pitchford, M. D., Southern Medical College, Atlanta, 1888. Certificate granted.

This board had neglected its duties for several years, and it required a great deal of effort to induce them to make these examinations. The applications, supervisor's certificates, and the ratings are all missing. Under all the circumstances the applicants deserve credit.

Coffee county board. For the study of medicine, none. For the practice of medicine, none.

Colbert county board. For the study medicine, none. For the practice of medicine, none.

Conecuh county board. For the study of medicine, none. For the practice of medicine—

Mack Rogers, M. D., Medical College of Alabama, 1889. Certificate granted.

William Chessly Shaw, M. D., Medical College of Alabama, 1885. Certificate granted.

These examinations, both on the part of the board and on the part of the applicants, average very well.

Coosa county board. For the study of medicine, none. For the practice of medicine—

Albert James Peterson, M. D., Vanderbilt University, 1889. Certificate granted.

In this examination the application and all of the ratings are omitted. Also, the fee has not been paid. The applicant does fairly well.

Covington county board. For the study of medicine, none. For the practice of medicine, none.

Crenshaw county board. For the study of medicine, none. For the practice of medicine—

William Henry Coston, M. D., Southern Medical College, Atlanta, 1889. Certificate granted.

Wilbur Eugene Sentell, M. D., Medical College of Alabama, 1889. Certificate granted.

In making these examinations the board has not followed either the old or the new schedule, but seem to have made a schedule of their own. The applications, the supervisor's certificates, and all the ratings are also wanting. This board should be more careful. The applicants have done fairly well.

Cullman county board. For the study of medicine, none. For the practice of medicine, none.

Dale county board. For the study of medicine, none. For the practice of medicine, none.

Dallas county board. For the study of medicine, none. For the practice of medicine, none.

DeKalb county board. For the study of medicine, none. For the practice of medicine—

William W. Clapp, M. D., Western Homeopathic College, 1888. Certificate granted.

William Stark DeGolia, M. D., Albany Medical College, 1882. Certificate granted.

Charles Lodwick Downer, M. D., Rush Medical College, Chicago, 1883. Certificate granted.

Frederick Penniman Gale, M. D., University of Vermont, 1830. Certificate granted.

John Franklin Maines, M. D., Bellevue Hospital Medical College, 1882. Certificate granted.

James Alexander Sexton, M. D., University of Maryland, 1873. Certificate granted.

George Drake Weston, M. D., University of Pennsylvania, 1887. Certificate granted.

This board, on account of the growing importance of the town of Fort Payne, has during the year had a great deal of work to do. They have done it fairly well, but at the same time their work admits of some adverse criticism. A good many of the questions are not well chosen, and as a rule they have valued the answers at a very high rate. The applicants generally seem to be fairly well qualified, and were rightly passed, but some of them are graded too high.

Elmore county board. For the study of medicine, none. For the practice of medicine, none.

Escambia county board. For the study of medicine, none. For the practice of medicine—

James Lorraine Bass, M. D., Louisville Medical College, 1887. Certificate granted.

George P. Henry, M. D., University of Nashville, 1870. Certificate granted.

These are the first examinations made by this board. They admit of a good deal of criticism. A large proportion of the questions admit of very brief answers, and are not well calculated to test the knowledge of the applicants. There are no supervisor's certificates. If there was a supervisor his work was badly done. The papers on the natural history of diseases, and on the mechanism of labor are missing. The questions are not repeated before the answers; and the answers are deficient in fullness. Dr. Bass seems to have been passed on less than the required seventy-five per centum.

Etowah county board. For the study of medicine, none. For the practice of medicine, none.

Fayette county board. For the study of medicine, none. For the practice of medicine—

Victor Savage, M. D., Vanderbilt University, '89. Certificate granted.

This examination was conducted in a very irregular fashion. The proper schedule was not used. There is no application, no supervisor's certificate, and no ratings. The applicant was passed without showing any reasonable degree of knowledge of medicine. No fee.

Franklin county board. For the study of medicine, none. For the practice of medicine, none.

Geneva county board. For the study of medicine, none. For the practice of medicine, none.

Greene county board. For the study of medicine, none. For the practice of medicine—

William Reuben Hatter, M. D., Tulane University, 1889. Certificate granted.

This examination is very defective. The wrong schedule is used. There is no supervisor's certificate, and all the ratings are omitted. And the fee remains unpaid.

Hale county board. For the study of medicine, none. For the practice of medicine—

James Adam Tidmore, M. D., University of Kansas City, 1884. Certificate granted.

The papers in this case are neatly arranged, except that the questions are written on note paper, and the ratings in the ten branches are scattered through the volume instead of being gathered together at the beginning. The summary of the ratings is not given at all. In several of the branches the questions are few; for example, mechanism of labor one, and obstetric operations two. Many of the questions are very good, and the work of the board is above the average; but this board could do still better if a little more attention was paid to the art of asking questions. The applicant meets the examination well throughout, and shows himself entitled to his certificate.

Henry county board. For the study of medicine, none. For the practice of medicine, none.

Jackson county board. For study of medicine, none. For the practice of medicine—

Samuel Augustus Templeton, M. D., Vanderbilt University, 1889. Certificate refused.

On this examination there is no supervisor's certificate. There are no papers on the natural history of diseases, and the mechanism of labor. Papers on pathology and materia medica are inserted.

Jefferson county board. For the study of medicine, none. For the practice of medicine—

Jean William Burns, M. D., Pulte Medical College, 1882. Certificate granted.

John Darius Crumm, M. D., Howard Medical College, 1887. Certificate refused.

Frank Vaughan Fowlkes, M. D., University of Maryland, 1887. Certificate granted.

Charles Lowry Hill, M. D., University of Tennessee, 1888. Certificate granted.

Lewell Campbell Ruter, M. D., Cincinnati College of Medicine and Surgery, 1889. Certificate granted.

John McPherson Thompson, (colored) M. D., Meharry Medical College, 1889. Certificate granted.

William Hardy Stevens, M. D., Baltimore College of Physicians and Surgeons, 1889. Certificate granted.

John Wiggins, M. D., New York College of Physicians and Surgeons, 1879. Certificate granted.

Robert Scott Woodson, M. D., Vanderbilt University, 1889. Certificate granted.

During the past year this board has done its work well. The questions are usually well chosen, and the papers come up in good order. The applicants as a rule have shown themselves worthy of the certificates awarded them.

Lamar county board. For the study of medicine, none. For the practice of medicine—

John G. Smith, M. D., Medical College of Alabama, 1889. Certificate granted.

On the part of the board this examination is very badly done. Many of the questions are not well chosen. There is no application, no supervisor's certificate, and no ratings. Papers on the natural history of diseases, and the mechanism of labor are omitted; and papers on the practice of medicine, therapeutics, and pharmacy are inserted. The paper used is of several different sizes; and the applicants answers are all written in lead pencil. The fee for binding has not been paid.

Lauderdale county board. For the study of medicine, none. For the practice of medicine, none.

Lawrence county board. For the study of medicine, none. For the practice of medicine, none.

Lee county board. For the study of medicine, none. For the practice of medicine, none.

Limestone county board. For the study of medicine, none. For the practice of medicine—

John Sims Crutcher, M. D., Vanderbilt University, 1889. Certificate granted.

George Roland Lewis, M. D., University of Nashville, 1889. Certificate granted.

These examinations are very fairly done, both on the part of the board and on the part of the applicants.

The Lowndes county board. For the study of medicine, none. For the practice of medicine—

Thomas Daniel Stallings, M. D., Medical College of Alabama, 1889. Certificate granted.

In former years this board was noted for the excellence of its work. But it is not to be congratulated on this examination. The papers on the natural history of diseases, the mechanism of labor, and medical jurisprudence, are missing.

Macon county board. For the study of medicine, none. For the practice of medicine—

Louis William Johnstone, M. D., Medical College of Alabama, 1889. Certificate granted.

John Samuel Johnston, M. D., Memphis Medical College, 1889. Certificate granted.

These examinations are not up to the mark on the part of the board. The ratings are missing in about half the branches; and in one of the examinations the supervisor's certificate is missing. The applicants acquitted themselves fairly well.

Madison county board. For the study of medicine, none. For the practice of medicine, none.

Marengo county board. For the study of medicine, none. For the practice of medicine, none.

Marion county board. For the study of medicine, none. For the practice of medicine, none.

Marshall county board. For the study of medicine, none. For the practice of medicine—

James Robert Sherman, M. D., Eclectic Medical College of Georgia, 1889. Certificate granted.

This is an extremely superficial examination. The questions occupy about as much space as the answers—one page for each branch. The ratings are all missing except the summary.

Mobile county board. For the study of medicine, none. For the practice of medicine—

Charles LeBaron, M. D., Medical College of Alabama, 1889. Certificate granted.

A good set of papers in good order.

Monroe county board. For the study of medicine—

Mr. Frank Mason. Certificate granted.

This is in every way a model preliminary examination.

For the practice of medicine—

Samuel McC. Hawthorn, M. D., Medical College of Alabama, 1889. Certificate granted.

P. Morton Hodgson, M. D., Atlanta Medical College, 1889. Certificate granted.

In both of the examinations the supervisor's certificate is missing. Otherwise the papers are neatly arranged. The questions are fairly well selected, and the answers are fairly good.

Montgomery county board. For the study of medicine, none. For the practice of medicine—

Malvern Nicholas Due, M. D., College of Physicians and Surgeons, New York, 1888. Certificate granted.

W. S. Fowler, M. D., Rush Medical College, 1888. Certificate refused.

William Joseph Tipton, M. D., Southern Medical college, Atlanta, 1888. Certificate granted.

These papers are all gotten up in good style. The first applicant and the last fully deserved the certificates awarded them. The case of Dr. Fowler was appealed to the State Board, on the ground that injustice had been done him in the examination in physiology. It is therefore specially discussed in the preceding part of this report.

Morgan county board. For the study of medicine, none. For the practice of medicine—

B. G. Allen, M. D., Beaumont Hospital Medical College, 1888. Certificate granted.

Farris Alexander Burnum, M. D., Memphis Hospital Medical College, 1889. Certificate granted.

Dean Taylor Smith, M. D., Chicago Homeopathic College. Certificate granted.

Sanders Love Swygert, M. D., Jefferson Medical College, Philadelphia, 1885. Certificate granted.

This board occupies an important position, as is shown by the number of examinations made by it. This should have stimulated the board to do its work well, but it did not do so. In one set of papers there is no examination in the natural history, of diseases, and the ratings in six out of the ten branches are missing. In another set there are missing the original questions in four branches, and the ratings in all the branches except two. In still another set the ratings are missing in seven branches, and the questions in two branches. In several branches the questions are too numerous. Fewer and better ones would do better. Some of the questions are inadequately expressed; as, for example, "Pleuritis?" "Acute Articular Rheumatism?" without stating what is desired in regard to the subjects mentioned.

Perry county board. For the study of medicine, none. For the prac tice of medicine, none.

Pickens county board. For the study of medicine, none. For the practice of medicine, none.

Pike county board. For the study of medicine, none. For the practice of medicine—

John Adolphus McEachern, M. D., University of Louisville, 1889. Certificate granted.

In this examination the supervisor's certificate, and the paper on obstetric operations are missing. The original questions are also omitted. An unusually large percentage of the questions are too comprehensive, or are inadequately expressed. The applicant well deserved his certificate.

Randolph county board. For the study of medicine, none. For the practice of medicine—

Stonewall Jackson Gay, M. D., Southern Medical College, 1888. Certificate granted.

Cary Willis Taylor, M. D., Atlanta Medical College, 1889. Certificate granted.

These examinations are fairly well done, both on the part of the board, and on the part of the applicant.

Russell county board. For the study of medicine, none. For the practice of medicine, none.

Shelby county board. For the study of medicine, none. For the practice of medicine—

John F. Ruckell, M. D., Chicago Homeopathic Medical College, 1886. Certificate refused.

This examination is crude and unsatisfactory. Neither the board nor the applicant can claim any credit for it.

St. Clair county board. For the study of medicine, none. For the practice of medicine—

J. Carl Embry, M. D., Atlanta Medical College, 1889. Certificate granted.

This examination is not neatly gotten up. The paper varies in size, and a good part of it is written on both sides. The summary of the ratings is given; but there is no separate valuation of the answers in the ten branches. The applicant made exactly the 75 per centum; but in some of the branches he should have received higher ratings.

Sumter county board. For the study of medicine, none. For the practice of medicine—

David Hitt Williams, M. D., Bellvue Hospital Medical College, 1888. Certificate granted.

These examinations do credit to the applicants. The board evidently intended to do thorough work, but missed it at some points. The separate valuation of the answers in the different branches is missing.

Talladega county board. For the study of medicine, none. For the practice of medicine, none.

Tallapoosa county board. For the study of medicine, none. For the practice of medicine—

William Alphonso Holloway, M. D., Medical College of Alabama, 1889. Certificate granted.

W. J. Warren, M. D. Certificate granted.

The work of the board in these examinations. The ratings are all omitted; and Dr. Warren's application is also missing. The applicants acquitted themselves well.

Tuscaloosa county board. For the study of medicine, none. For the practice of medicine—

John James Harris, M. D., University of the City of New York, 1889. Certificate granted.

Louis Leichtshein, M. D., Bellvue Hospital Medical College, 1884. Certificate granted.

William Glassell Sommerville, M. D., College of Physicians and Surgeons, New York, 1889. Certificate granted.

There are a few small lapses on the part of the board in one of these examinations. But altogether the board has done well, and the applicants have acquitted themselves with credit.

Walker county board. For the study of medicine, none. For the practice of medicine, none.

Washington county board. For the study of medicine, none. For the practice of medicine, none.

Wilcox county board. For the study of medicine, none. For the practice of medicine—

Luckie Andrew Jenkins, M. D., Medical College of Alabama, 1889 Certificate granted.

Flavius F. Kimbrough, M. D., Tulane University, 1889. Certificate granted.

These papers are in everyway quite satisfactory.

Winston county board. For the study of medicine, none. For the practice of medicine—

Joseph C. Taylor, M. D., Medical College of Alabama, 1888. Certificate granted.

On the part of the board this examination is imperfect. There is no application, no supervisor's certificate, and no ratings. Papers on natural history of diseases, physical diagnosis, mechanism of labor, and public hygiene are omitted; and papers on theory and practice, and materia medica and therapeutics are inserted. The applicant has done fairly well.

PART III. THE REPORT OF THE STATE BOARD OF HEALTH.

During the past year we have had no serious epidemic visitations of any sort. The great burden of our work has been, as usual, to increase the efficiency of the county boards of health, and to press forward the great work of collecting the vital statistics of the state. In this we have made very satisfactory progress—far greater progress, indeed, than in any previous

year. The details of this work will be found in the notes on the work of the county boards of health in another part of this report.

EXPENDITURES.

THE STATE BOARD OF HEALTH,

In Account with the State of Alabama:

1889.			Dr.
April	30.	To cash from Auditor	$ 250 00
May	31.	" "	250 00
June	29.	" "	250 00
July	31.	" "	250 00
Aug.	31.	" "	250 00
Sept.	30.	" "	100 00
Oct.	5.	" "	150 00
"	31.	" "	250 00
Nov.	31.	" "	250 00
Dec.	30.	" "	250 00
1890.			
Jan.	31.	" "	250 00
Feb.	28.	" "	250 00
Mar.		" "	250 00
		Total	3,000 00

CREDITS.

1889.			
April	15.	By postage	$ 5 00
"	15.	box rent, P. O.	1 50
"	23.	telegram, Florida	1 50
"	30.	Health Officer's salary (April)	150 00
"	30.	clerk's salary (April)	50 00
May	1.	postage	5 00
"	3.	express	50
"	6.	express	50
"	7.	postage	5 00
"	8.	cash to Joel White	2 15
"	29.	postage	5 00
"	31.	Health Officer's salary (May)	150 00
"	31.	clerk's salary (May)	50 00
June	3.	postage	5 00
"	5.	postage	5 00
"	16.	postage, from building fund	1 00
"	19.	postage	5 00
"	4.	cash paid Brown & Co	75 00

June	29.	By	postage	$ 5 00
"	29.		Health Officer's salary (June)	150 00
"	29.		clerk's salary (June)	50 00
July	7.		postage, binding fund	1 00
"	9.		box rent, P. O	1 50
"	12.		postage, binding fund	1 00
"	15.		H. O's. expenses to Greenville	1 70
"	18.		seventy-one copies "Dispatch"	2 10
"	26.		postage	5 00
"	31.		Health Officer's salary (July)	150 00
"	31.		clerk's salary (July)	50 00
Aug.	1.		postage	3 00
"	9.		postage	5 00
"	26.		postage	5 00
"	31.		Health Officer's salary (August)	150 00
"	31.		clerk's salary (August)	50 00
Sept.	3.		postage	5 00
"	4.		cash paid Brown & Co	100 00
"	5.		cash to Joel White	6 90
"	5.		freight to Camden	25
"	17.		postage	5 00
"	19.		postage	5 00
"	25.		postage	5 00
"	27.		postage, (Book of Rules)	1 50
"	27.		drayage	25
"	28.		postage (B. of R.)	2 00
"	29.		postage (B. of R.)	1 00
"	30.		Health Officer's salary (Sept.)	150 00
"	30.		clerk's salary (Sept.)	50 00
Oct.	3.		box rent, P. O	1 50
"	5.		postage (B. of R.)	50
"	8.		postage	5 00
"	8.		express	25
"	10.		postage (B. of R.)	1 00
"	11.		express, 2 packages	80
"	11.		postage (B. of R.)	50
"	12.		express, Huntsville	50
"	17.		postage (B. of R.)	50
"	17.		postage	5 00
"	20.		postage (B. of R.)	50
"	25.		" "	50
"	30.		" "	50
"	31.		Health Officer's salary (Oct.)	150 00
"	31.		clerk's salary (Oct.)	50 00
Nov.	1.		express	40
"	1.		postage	5 00

Nov.	7.	By postage (B. of R.)	$ 50
"	8.	" "	50
"	11.	" "	50
"	12.	" "	50
"	13.	" "	1 00
"	20.	postage	2 00
"	23.	postage	5 00
"	24.	postage (B. of R.)	50
"	27.	" "	50
"	30.	postage	5 00
"	30.	Health Officer's salary (Nov.)	150 00
"	30.	clerk's salary (Nov.)	50 00
Dec.	4.	postage (B. of R.)	50
"	7.	" "	50
"	11.	postage, envelopes and stamps	7 60
"	12.	express	50
"	13.	express	45
"	13.	cash paid Brown & Co	100 00
"	17.	postage (B. of R.)	50
"	18.	express to Florence	60
"	22.	postage (B. of R.)	50
"	30.	postage, envelopes, &c	5 60
"	31.	Health Officer's salary (Dec.)	150 00
"	31.	clerk's salary (Dec.)	50 00
1890.			
Jan.	3.	postage, (B. of R)	50
"	3.	box rent, P. O	1 50
"	10.	postage, envelopes, &c	5 60
"	12.	receipt book, Joel White	50
"	14.	postage, (B. of R)	50
"	18.	" "	50
"	18.	drayage	25
"	21.	express, from Chicago	65
"	22.	postage, (B. of R)	50
"	23.	" "	50
"	28.	" "	50
"	31.	Health Officer's salary, (Jan)	150 00
"	31.	clerk's salary, (Jan)	50 00
Feb.	7.	postage, (B. of R)	1 00
"	15.	express	50
"	18.	express	30
"	28.	Health Officer's salary, (Feb)	150 00
"	28.	clerk's salary, (Feb)	50 00
M'ch.	7.	postage	1 00
"	12.	cash to Joel White	40

March	26.	By postage, (B. of R)	$ 50
"	31.	Health Officer's salary, (March)	150 00
"	31.	clerk's salary, (March)	50 00
"	31.	cash to Brown & Co	150 25
		Total credits to April 1, 1890	$3,000 00

RECAPITULATION OF EXPENDITURES.

Health Officer's salary from April 1, 1889, to April 1, 1890	$1,800 00
Clerk's salary for same time	600 00
Postage for same time	146 80
Miscellaneous for same time	27 95
Amount paid for printing	425 25
Total	$3,000 00

GENERAL RECAPITULATION.

To total receipts from April 1, 1889, to April 1, 1890	$3,000 00
By total expenditures	3,000 00

NOTE BY THE STATE HEALTH OFFICER.

In the foregoing account the sum of forty-three dollars and forty-six cents ($43.46) was advanced by the state board to pay postage on the Book of the Rules. This sum has been refunded by the association out of the money derived from the sale of said books; and the amount thus refunded has been paid over to our printers, the Brown Printing company, which leaves the balances as before, with a corresponding diminution of our outstanding indebtedness.

THE ESTABLISHMENT OF LICENSED GRAVE YARDS.

At the instance of the association we introduced into the last general assembly a bill to authorize the courts of county commissioners to establish licensed grave yards, and make rules for the government of the same. This bill was not voted on in the general assembly because it was stated by lawyers on the floor that the commissioners courts had this authority already under existing laws.

This being the case, it becomes the duty of the county boards of health to use their influence with the county com-

missioners to induce them to establish such grave yards. According to existing customs in most country neighborhoods in this country the bodies of the dead may be buried almost anywhere. Grave yards, to some extent, grow up in many neighborhoods in which the majority of interments are made; but they are under no special regulation, and no record of interments are kept. Some of these already existing grave yards might be taken in hand by the county commissioners and placed under proper regulations. In other cases new grave yards might be established, also under proper regulations.

The regulations should be few and simple, especially at first. Other regulations might be added from time to time as circumstances might suggest. Some of the most obviously appropriate regulations are here subjoined:

(1) That every licensed grave yard should be placed in the charge of a sexton—somebody to look after it and take care of it. Any citizen living near by could easily act in this capacity. Or it would often be well to select the beat health officer.

(2) The sexton should be required to keep a register of interments in which should be recorded the full name of every person interred in the grave yard, with date of death, cause of death, where that can be ascertained, date of interment, and such other details as experience might indicate to be desirable.

(3) At first it might not always be expedient to require a special permit from the health authorities as a preliminary to burial; but in course of time it would always be found that good public policy would require this.

(4) Also, at first it might not be expedient to prohibit interments except in licensed grave yards, but this also would be found desirable in the course of time.

The plan here sketched is that which has already been adopted in all our towns and cities; and it is simply proposed to extend it to the country neighborhoods.

THE EDUCATION OF MIDWIVES.

No one will question the statement that a large majority of the midwives in Alabama are extremely ignorant of even the most elementary principles of obstetric practice; and every one at all conversant with the subject will agree that a higher standard of efficiency amongst them is very greatly to be desired.

Fortunately, in a very large percentage of labor cases the whole process, from the beginning to the end, is entirely normal, or very nearly so, and so require very little special skill for their management. But even in these normal cases a little obstetric knowledge would often avail to bring a considerable amount of comfort to the parturient woman. In one word, and without any long argument, instructed midwives are always to be preferred to uninstructed midwives. In the meantime, we have no schools for the instruction of midwives; and those who practice midwifery have to pick up such modicum of information as they have the best they can—a little from books, a little from doctors they meet with, and a little from their individual experience.

It is not now practicable, and will not become practicable in this country for many years, to regulate midwifery by law. But it has occurred to us that something can be done to improve the existing condition in this regard through our county boards of medical examiners, and our county health officers, without any appeal for legislation. It would be a great gain if the public had some way by which they might discriminate between fairly competent midwives and those not competent at all; and something in this direction might be accomplished if our boards of medical examiners were charged with the duty of examining midwives—such midwives as might apply to them for examination—and of awarding certificates of qualification to such as gave sufficient evidence of competency. These certificates would have no legal value; but they would have considerable practical value. The midwives holding these certificates would very naturally be chosen in preference

to those who were without such certificates; and would gradually absorb the bulk of the obstetrical practice in the neighborhoods in which they lived. Indeed, it seems reasonable to believe that if this practice were adopted generally, and systematically kept up not many years would elapse before a midwife without a certificate would hardly be able to get any practice at all, unless in cases of emergency.

Concurrently with this scheme for the examination of midwives it is very greatly to be desired that some scheme should be devised to furnish them with some opportunity for instruction in the art they propose to practice; and it seems to us that there should not be any insuperable difficulty in the way of devising such a scheme. Such a scheme, indeed, has already been devised, and to some extent carried into practice, in Bullock county, where, for several years, it has been the custom for the county health officer to call the midwives together occasionally to instruct them how to manage their labor cases, and how to make their reports of the same. The results have been decidedly encouraging, and no doubt the plan would work equally well in other counties. Still, we do not propose to make this duty of giving instruction in midwifery obligatory on the county health officer. Such instruction could be given by any qualified physician, and on such terms as might to him seem expedient. All that we, at present, propose to do, is to provide for the examinations, and to this end we recommend the adoption by the association of the subjoined ordinance:

AN ORDINANCE FOR THE EXAMINATION OF MIDWIVES.

Be it ordained by the Medical Association of the State of Alabama, SECTION (1), That it shall be the duty of the boards of medical examiners in the several counties of this state to examine all women already engaged in the practice of midwifery, or proposing to engage in such practice, in their respective counties, who make application to them for such examination.

SEC. 2. That the examinations shall embrace the funda-

mental principles involved in the management of natural labors, including both head and breach presentations; how to distinguish the different presentations; how to manage the several stages and accidents of natural labor; how to manage the placenta and the umbilical cord; what to do for the mother and child after delivery; and how to recognize difficulties and complications that require the summoning of skilled assistance.

SEC. 3. That these examinations shall be exclusively oral; that they shall be made carefully and in good faith; that certificates shall be issued only to such midwives as are found to have the requisite knowledge; that each board of medical examiners shall keep a book to be styled the Register of Qualified Midwives, in which shall be recorded copies of all the certificates issued by them; that the names of all midwives who pass successful examinations shall be reported annually to the state board of medical examiners to be by them included in their annual reports made to this association; and that every applicant for examination under this ordinance shall pay for the use of the board and to cover incidental expenses, the sum of one dollar.

SEC. 4. That the form of certificate to be issued to all who pass a successful examination in midwifery shall be as follows:

Know all men by these presents: That the board of censors of the medical society of blank county, acting as a board of medical examiners under the instruction of the Medical Association of the State of Alabama, do hereby certify that after due and careful examination they have found Mrs. Blank well and properly qualified to practice midwifery in all cases of natural and uncomplicated labor, and to this extent recommend her to the confidence and patronage of the public who may stand in need of such services.

Done in the city of blank, on the blank day of the month of blank, in the year 1890.

To be signed by the board.

THE WORK OF THE COUNTY BOARDS OF HEALTH.

Autauga county.—Our work in Autauga has never been in a satisfactory condition, but for several years, under the administration of Dr.

S. P. Smith, it was slowly improving. In 1887 Dr. L. J. Simpson was the county health officer. He made his reports very irregularly, and left the county in a decidedly worse condition than when he assumed charge. Dr. S. P. Smith has sent in complete reports for the town of Prattville for the whole year; and has recently been re-elected county health officer. The salary is one hundred dollars a year.

Baldwin county.—In this county the collection of statistics has not improved. If there is any change it has been for the worse. This is due to the fact that some months before the end of the year 1889, Dr. Marechal, the county health officer, moved to Mobile, and was not able to give so much attention to the work. Dr. William M. Lovelady is county health officer for 1890. The salary is two hundred dollars.

Barbour county.—As heretofore reported no work in the collection of vital statistics has been done for several years. Last year the work was resumed by the election of Dr. W. H. Robertson to be county health officer. Dr. Robertson has also been elected for 1890. He has sent in his reports with tolerable regularity, but the work has not been done as thoroughly as could have been wished. There were some difficulties in the way at the beginning, and we can only hope for better results this year. The salary is one hundred and fifty dollars a year.

Bibb county.—In this county, after an interval of some three years, an effort was made last year to resume work. The doctors generally in the county have responded very well to the appeals addressed to them; and the monthly reports have been resumed. We have a fairly good directory for the county, and hope for a fair measure of success. Dr. M. C. Schoolar is the county health officer. There is no salary.

Blount county.—This is another county for which the past history was not encouraging. It now promises better things. We have for it a tolerably good directory, and the monthly reports have been duly rendered. The returns are still defective, but they have decidedly improved. Dr. William M. Cole is the county health officer. The salary is seventy-five dollars a year.

Bullock county.—In this county the collection of vital statistics continues to be admirably done. Dr. R. H. Hayes is still the county health officer. He has the hearty support of the board of health and of the county commissioners. The salary is one hundred and fifty dollars a year.

Butler county.—There has been very little change in this county so far as our work is concerned. It is tolerably well done, but not perfectly. Dr. Job Thigpen is still the county health officer.

Calhonn county.—During the last year our work in Calhoun has greatly improved. There are four towns in the county containing more

than five hundred population—Anniston, Oxford, Jacksonville, and Piedmont, from all which we get complete returns. There are, however, a few beats in which the returns continue to be defective. With proper effort these beats could be redeemed. If that was done this county would be equal to any other in the state. Dr. T. W. Ayers is now the county he alth officer. The salary is one hundred and fifty dollars a year.

Chambers county.—In this county the board of health is strangely negligent of its duties, and there is no excuse for it. There are about thirty doctors in the county, and more than half of them are members of the county society. All they need is a county health officer who will make reports. The present nominal incumbent of the position, like his predecessor, is a complete failure. Of course, this is no excuse for the board, who are severely censurable for their neglect of duty.

Cherokee county.—Last year, under the circumstances, this county did remarkably well. Dr. A. M. McWhorter, the county health officer for 1889, was sick for several months. Still the work went on fairly well. This year Dr. G. D. W. Lawrence is the county health officer. We can only hope that he will prove equal to his predescessor.

Chilton county.—This is a county in which the collection of vital statistics could be done with comparative ease. Nevertheless, as for several years past, nothing has been done. All they need is a leader.

Choctaw County.—Our work in this county goes on in a formal and inefficient way; but much to our disappointment it does not improve. Dr. R. B. Carr is still the county health officer.

Clarke county.—In this county our work continues to be in a fairly satisfactory condition. Just a little more effort would make it very nearly perfect. Dr. J. W. Armistead is still the county health officer, and deserves commendation for his good work.

Clay county.—The past year our work in Clay county has improved very much, and there is every reason to believe that this improvement will continue. There is, indeed, good reason to hope that this county will soon be well brought up to the front. Dr. A. L. Harlan is the county health officer.

Cleburne county.—As usual for several years past this county has done nothing. Last year Dr. O. W. Shepard was elected county health officer, but he has made no reports. The society, meantime, has improved in membership and discipline, and there is some hope that some effort will be made to collect the statistics this year.

Coffee county.—Nothing in our line of work was done last year in this county. Dr. F. M. Rushing has been elected county health officer. We can only hope that he will be able to make a good showing for the current year.

Colbert county.—This county has done better during the past year, but has achieved only a very moderate success. The doctors of Sheffield are very specially to be blamed for the way they have acted. In spite of the efforts of the county health officer, Dr. S. J. Cooper, and of the state health officer, they have systematically neglected to report their cases. If they continue in this course, it will be necessary to enforce against them the penalty of the law. They are without excuse.

Conecuh county.—The work in this county continues to be well done. Dr. A. A. McKittrick is still the county health officer. He claims to get absolutely complete returns of the births and deaths, and his claim seems to be well founded. The salary is two hundred dollars a year.

Coosa county.—In this county there has been some improvement over last year; but the collection of statistics is still very defective. Dr. W. E. Maxwell is the county health officer. The salary is one hundred dollars a year. Dr. Maxwell ought to do better under the circumstances.

Covington county.—Very little as yet has been done in this county in our line of work. Dr. Wm. J. Head has been county health officer, but he has made no reports. In the meantime a good many of the doctors have filled out certificates of their cases; and it seems certain that with an active health officer fairly good work could be done.

Crenshaw county.—There has been some improvement in our work in this county, but it is still not in a satisfactory condition. It is hoped, however, that it will continue to improve. Dr. S. W. May is still the county health officer. There is no salary.

Cullman county.—After years of failure this county has suddenly waked up; has done fairly good work for 1889, and for the current year is making an excellent showing. All the doctors are reporting except one. Dr. M. L. Johnson is the county health officer. There is as yet no salary; but as the work is now done it is worthy of being paid for.

Dale county.—No reports have been received from this county since 1888, and then they were very defective. It would not be difficult to do good work in this county; and the county board is greatly to be blamed for its neglect of duty. Dr. W. L. Jones has been elected health officer of this county.

Dallas county.—We have had a great deal of trouble in Dallas during the past year. Dr. McKinnon, who was health officer in 1888, had got the county, which is a very difficult one to manage, into a very favorable condition, and was doing good work. He was superseded at the beginning of 1889 by Dr. M. W. Coleman, under whose administration, or rather want of administration, everything fell into disorder. Finally after a great deal of complaint from the state health officer, he was removed and Dr. S. Kirkpatrick was put in his place. Dr. Kirkpatrick has

done much to recover the ground that was lost, and gives promise of making an efficient officer. The salary is two hundred and forty dollars a year. Dr. T. G. Howard is now county health officer.

DeKalb county.—There was some improvement in our work in DeKalb county during the past year. Amongst other things the organization of the beats has been considerably improved. Dr. F. Weaver was health officer in 1889. For the current year Dr. H. P. McWhorter has been elected. The salary is one hundred and sixty-five dollars.

Elmore county.—In this county our work has improved very much, so that it now ranks among the dozen leading counties in the State. Dr. O. S. Justice is still the county health officer. There is no salary, but it is high time the county commissioners should recognize his good work.

Escambia county.—Escambia county has continued to improve in our work until now she stands equal to any other county in the State. Dr. Dr. S. C. Henderson is the county health officer; and the salary is one hundred dollars a year.

Etowah county.—Our work in this county has improved very rapidly under the able administration of the county health officer, Dr. M. R. Wright, and is getting in a very satisfactory condition. The salary is two hundred and twenty-five dollars a year.

Fayette county.—This county has continued to do fairly well, but has not done so well this year as it did last. Dr. T. B. Wood is still the county health officer. The salary is one hundred dollars a year.

Franklin county.—In the collection of vital statistics this is the most backward county in the State. It has never done anything at all, except to appoint a county health officer who ignores all letters addressed to him in relation to the work he was expected to do.

Geneva county.—Dr. T. J. Warde the county health officer, made a few monthly reports during the first half of 1889. They were imperfect, however, and for several months no reports have been received from the county. In this county the majority of the doctors are perfectly willing to report. The only thing needed is a county health officer, who has the proper tact and power of management.

Greene county.—This county, after several years of neglect, has made some effort during the past year to wheel into line again. We have for it a fairly good medical directory, and the monthly and annual reports have been duly rendered. The returns have been defective, but are improving. The county health officer is Dr. T. W. Pierce. There is no salary.

Hale county.—There was a suspension of work in this county during

a part of the year 1888, and the annual reports for that year were quite defective. The work was regularly resumed at the beginning of 1889, since which time reports have been regularly made. We regret to say that they have been quite defective; but there are now some signs of improvement. Dr. Jacob Huggins is the county health officer. The salary is one hundred and fifty dollars a year.

Henry county.—In this county work was begun with the beginning of the current year. It has not been specially successful; but shows a tendency to improve. Dr. J. I. Darby is the county health officer. The salary is one hundred dollars.

Jackson county.—Under the able management of Dr. Andy Boyd, Jackson county was brought well up to the front, and this in a single year. For this good work he deserves special credit. This year the county health officer is Dr. J. R. Tarrant. The salary is one hundred dollars a year.

Jefferson county.—In this county our work has steadily improved. At the same time it has continued to show defects in several of the details. Very specially there are several beats for which we have no medical directory, and for which we have had no special and separate return of births and deaths. This last defect would have been avoided to some extent if the number of the beat had been always inserted in the certificate of every birth or death. Dr. J. C. Dozier was county health officer last year with a salary of six hundred dollars a year. This year Dr. H. N. Rosser is the county health officer. He is, also, city health officer for Birmingham, and has some other duties. His salary, altogether, is eighteen hundred dollars a year.

Lamar county.—In this county our work is fairly well done. There are several beats in which there are no resident physicians; and some few of the physicians are negligent about making their reports. Most of these negligent practitioners have come to terms, and the outlook for the current year is encouraging. Dr. R. J. Redden is still county health officer.

Lauderdale county.—Up to last year no effort to make reports was made in this county; and the effort made last year bore very scanty fruit. The county is now fairly well organized, we have for it a fairly good medical directory, and reports will probably be made regularly this year. Dr. Charles M. Watson is the county health officer. The salary is two hundred dollars a year.

Lawrence county.—The work in this county remains defective; but there are some signs of improvement. The great trouble has been the negligence of the doctors. The reports are made regularly. Dr. William J. McMahon is county health officer.

Lee county.—In our line of work there has been quite a revival in Lee county. Dr. R. L. Sutton was elected county health officer in October. He has been quite active, and we now expect good work in this county. The county health officer has no salary.

Limestone county.—This county remains in an unsatisfactory condition. In it the beat system has never been properly carried out. Monthly reports were received for only a portion of the year. The annual report is a good one. Dr. Wm. J. Hagan is county health officer. The salary is one hundred dollars.

Lowndes county.—In this county there is no change. The work is well done. Dr. Shirley Bragg is still the county health officer. The salary is six hundred dollars a year.

Macon county.—Heretofore all efforts to collect vital statistics in Macon county have failed completely. Last fall Dr. L. W. Johnson was elected county health officer. We have for it a tolerably good medical directory, and some monthly reports have been made. The work is not yet in a satisfactory condition. We can only hope that it will improve.

Madison county.—In this county, under Dr. Lowry's administration, there was marked improvement in our work until about the middle of last year. Since then Dr. Lowry has been a good deal of his time away from home, and the monthly reports have grown defective. For this year Dr. J. L. Darwin has been elected county health officer. The salary is two hundred dollars a year.

Marengo county.—In this county after a long interval of complete failure, Dr. C. B. Thomas was elected county health officer. He seems anxious to succeed, but as yet has accomplished very little. The salary is one hundred and fifty dollars. Since the above was written Dr. Thomas has been succeeded by Dr. R. B. McCants.

Marion county.—This county has made very slow progress. The first county health officer, Dr. Warren Guyton, never made a report. He was succeeded by Dr. E. L. Morton, who has finally gotten up a fairly good county medical directory, and began in January to send in the monthly reports. As yet they are very defective. There is no salary.

Marshall county.—In this county during last year our work improved considerably. Dr. Ricketts, the county health officer, moved into another county. Dr. W. L. Thomason is now the county health officer.

Mobile county.—Last summer Dr. D. C. Randle was elected county health officer of this county, with a salary of three hundred dollars a year. He has made out a county medical directory, and is sending regular monthly reports. The reports are still extremely defective.

Monroe county.—Our work in this county is, in the main, well done, with perhaps some improvement over previous years. Dr. W. W. McMillan is still the county health officer. The salary is one hundred dollars a year.

Montgomery county.—In this county, we are sorry to say, the work of collecting vital statistics continues to be poorly done. The county health officer is Dr. P. H. Owen. Last year his salary was three hundred dollars.

Morgan county.—In this county our work has gone on about as usual. It has been tolerably well done, but ought to have been done much better. It is perfectly possible to place this county in the front rank. For the current year Dr. Peter Binford has been elected county health officer. The salary is one hundred and fifty dollars a year.

Perry county.—Last year work in this county was resumed, and considerable progress was made. Dr. C. A. Thigpen was the county health officer. For the current year Dr. C. A. Wilkerson has been elected. The outlook is encouraging. The salary is one hundred and fifty dollars.

Pickens county.—Our work in Pickens last year was a continuation of disappointments. The work has gone on in a very unsatisfactory fashion. This year Dr. F. K. Beck is the county health officer, and we hope for better things.

Pike County.—Our work in this county was fairly well done last year. But the returns are not complete. Dr. P. H. Brown has been succeeded as county health officer by Dr. J. S. Beard.

Randolph county.—In this county we have not succeeded well. Monthly reports were sent in regularly, but they were extremely defective. Dr. P. G. Trent, jr., was the county health officer. Since this was written, Dr. C. W. Taylor has been appointed county health officer.

Russell county.—No reports were received from this county again last year. Dr. H. H. Allen was elected county health officer, but never made a report. For the current year the work has been undertaken by Dr. B. W. Allen.

Shelby county.—Nothing was done in this county last year. As we have already explained in our past reports this is a county in which our work has been admirably done, and could be done so again with a competent health officer. Dr. W. S. DuBose is now nominally county health officer, but makes no reports.

St. Clair county.—Our work was well done in this county last year,

and is now in a fairly satisfactory condition. Dr. D. E. Cason, to whom this condition of things is due, has been succeeded by Dr. G. M. Jones.

Sumter county.—Our work in this county remains still in an unsatisfactory condition. There has been, however, some small measure of improvement. Dr. W. H. Sledge is still the county health officer. The salary is one hundred dollars a year.

Talladega county.—In this county our work has dragged terribly, and it improves very little, if any at all. Dr. W. F. Thetford is the county health officer. The salary is two hundred dollars a year.

Tallapoosa county.—This county has shown some considerable improvement during the past year; but it still has four or five beats that are not coming fully up to the mark. Dr. J. A. Goggans is still the county health officer. The salary is one hundred dollars.

Tuscaloosa county.—We regret to have to give still a bad account of this county. It does not improve. The county health officer is Dr. O. H. Burton, and he has been very negligent of his duties. The salary is one hundred dollars a year. Since this was written, Dr. John B. Read has been elected county health officer.

Walker County.—This county failed again last year to do anything in the way of collecting vital statistics. Dr. W. C. Rosamond is the county health officer, but he has never made a report.

Washington County.—In this county no attempt to collect vital statistics has ever been made. Dr. John Gordon is still nominally county health officer.

Wilcox County.—In this county our work continues to drag on without improvement. Dr. R. H. Kilpatrick is still the county health officer. The salary is one hundred dollars a year.

Winston County.—This county has done well. The county health officer, Dr. Thomas P. Deweese, deserves credit.

PART IV. SUPPLEMENTARY PAPERS.

THE INTERSTATE QUARANTINE LAW.

We submit herewith for the consideration of members the act of Congress recently passed to regulate interstate quarantine. So far as we have been able to learn this act was passed not only without consultation with any of the state boards of health, but, also, without their knowledge. In a word, it

seems not to have been heard of by any of the health authorities of the country until it was issued with the approval of the President. The health authorities of Alabama have cause to regard it with apprehension. It seems, so far as we are able to judge of it, to give to the Surgeon General of the Marine Hospital Service almost unlimited power to enter the states and to take charge of our local quarantines. Suppose we had a few cases of yellow fever in Mobile. It might very plausibly be asserted that Mississippi and Tennessee were in danger of invasion; and then what is there to prevent the Surgeon General of the Marine Hospital Service from taking complete quarantine charge of Mobile? and even of the State of Alabama?

AN ACT

To prevent the introduction of contagious diseases from one State to another and for the punishment of certain offenses.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever it shall be made to appear to the satisfaction of the President that cholera, yellow fever, small pox, or plague exists in any state or territory, or in the District of Columbia, and that there is danger of the spread of such disease into other states, territories, or the District of Columbia, he is hereby authorized to cause the Secretary of the Treasury to promulgate such rules and regulations as in his judgment may be necessary to prevent the spread of such disease from one state or territory into another, or from any state or territory into the District of Columbia, or from the District of Columbia into any state or territory, and to employ such inspectors and other persons as may be necessary to execute such regulations to prevent the spread of such disease. The said rules and regulations shall be prepared by the Supervising Surgeon General of the Marine Hospital Service, under the direction of the Secretary of the Treasury. And any person who shall wilfully violate any rule or regulation so made and promulgated shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not more than five hundred dollars, or imprisonment for not more than two years, or both, in the discretion of the court.

SEC. 2. That any officer, or person acting as an officer, or agent of the United States at any quarantine station, or other person employed to aid in preventing the spread of such disease, who shall wilfully violate any of the quarantine laws of the United States, or any of the rules and regulations made and promulgated by the Secretary of the Treasury

as provided for in section one of this act, or any lawful order of his superior officer or officers, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

SEC. 3. That when any common carrier or officer, agent, or employe of any common carrier shall wilfully violate any of the quarantine laws of the United States, or the rules and regulations made and promulgated as provided for in section one of this act, such common carrier, officer, agent, or employe shall be deemed guilty of a misdemeanor, and shall, on conviction, be punished by a fine of not more than five hundred dollars, or imprisonment for not more than two years, or both, in the discretion of the court.

Approved March 28, 1890.

ACTION OF THE ASSOCIATION ON THE REPORT OF THE BOARD OF CENSORS.

The senior censor read the report of the board of censors and committee of public health by the several sections separately for the consideration of the Association. In this way the following votes were taken:

(1) The senior censor read the report of the board of censors in regard to the annual message of the president, (see *ante* pp. 81–82), and moved its approval by the Association.
The motion was unanimously passed.

(2) The senior censor read the report of the board of censors in regard to the reports of the vice-presidents, (see *ante* pp. 73–74–75), and moved its approval by the Association.
The motion was unanimously passed.

(3) The senior censor read the recommendation of the board of censors in regard to the report of the secretary and the Book of the Rolls (see *ante* p, 75), and moved its approval by the Association.
The motion was unanimously passed.

(4) The senior censor read the recommendation of the board of censors in regard to the report of the publishing committee (see *ante* p. 75), and moved its approval by the Association.
The motion was unanimously passed.

(5) The senior censor read the recommendation of the board of censors in regard to the report of the treasurer and the Book of Accounts (see *ante* p. 75), and moved its approval by the Association.
The motion was unanimously passed.

(6) The senior censor read the recommendation of the board

of censors in regard to the roll of correspondents (see *ante* p. 76), and moved its approval by the Association.

The motion was unanimously passed.

(7) The senior censor read the recommendation of the board of censors in regard to the delinquent counties (see *ante* p. 76), and moved its approval by the Association.

The motion was unanimously passed.

(8) The senior censor read the ordinance in regard to the doctors' home (see *ante* pp. 76–77), and moved its adoption by the Association.

The motion was unanimously passed.

(9) The senior censor read the report of the board of censors in regard to the library and museum (see *ante* p. 77), and moved its approval by the Association.

The motion was unanimously passed.

(10) The senior censor read the report of the board of censors on contract practice (see *ante* pp. 77–78–79), and moved its approval and the adoption of the included ordinance by the Association.

The motion was passed, with a few adverse votes.

(11) The senior censor read the report of the board of censors in regard to the revision of the minutes of the session of 1889, (see *ante* p. 79), and moved its approval by the Association.

The motion was unanimously passed.

(12) The senior censor read the report of the board of censors on the case of Dr. W. C. Cross (see *ante* p. 80), and moved the adoption by the Association of the included resolution, to rescind previous action, and to accept Dr. Cross's resignation.

The motion was unanimously passed.

(13) The senior censor read the report of the board of censors on the new edition of the Book of Rules (see *ante* pp. 81–

82), and moved its approval by the Association, and the adoption of the included resolution.

The motion was unanimously passed.

(14) The senior censor read the report of the board of censors in regard to section 4078 of the Code (see *ante* pp. 83–84–85–86–87–88–89), and moved its approval by the Association, and the adoption of the included resolutions.

The motion was unanimously passed.

(15) The senior censor read the ordinance recommended by the board of censors in regard to association banquets (see *ante* pp. 89–90), and moved the adoption of the ordinance by the Association.

The motion was unanimously passed.

(16) The senior censor read the report of the board of censors in regard to the neglect of duty by the officers of the county medical societies (see *ante* pp. 90–91), and moved its approval by the Association.

The motion was unanimously passed.

(17) The senior censor read the report of the board of censors in regard to medical ethics, and the appointment of monitors (see *ante* p. 92), and moved its approval by the Association.

The motion was unanimously passed.

(18) The senior censor read the report of the board of censors in regard to the preliminary examination of medical students (see *ante* p. 95), and moved its approval by the Association.

The motion was unanimously passed.

(19) The senior censor read the recommendations of the board of censors in regard to the establishment of licensed grave yards (see *ante* pp. 112–113), and moved the approval by the Association.

The motion was unanimously passed.

(20) The senior censor read the recommendations of the board of censors in regard to the examination of midwives (see *ante* pp. 114–116), and moved their approval by the Association.

The motion was unanimously passed.

(21) The senior censor moved the adoption as a whole of the report of the board of censors as read.

The motion was unanimously passed.

THE REVISION OF THE BOOK OF THE ROLLS.

(1) The Revision of the Roll of County Societies.

The roll of the county societies was called in the order of their arrangement, and all of them being accounted for by annual reports submitted, and payment of dues, were favorably passed upon, except the counties of Covington, Franklin, Geneva and Washington, which were referred to the board of censors for investigation.

The roll of the county societies was here closed, until the annual session of the Association, 1891.

(2) The Revision of the College of Counsellors.

THE GRAND SENIOR COUNSELLORS.

Dr. John Richardson Hoffman, of Athens, grand senior counsellor of 1879, tendered his resignation, which was accepted, and his name ordered struck from the roll.

Drs. James Myers Godfrey, of Sumterville, and Augustus Jordan Reese, of Mobile, grand senior counsellors of 1873, having died during the year, their names were ordered struck from the roll.

SENIOR COUNSELLORS.

Dr. Aurelius Grigsby Emory, of Opelika, senior counsellor of 1883, was reported as delinquent of dues for 1889. His name was ordered struck from the roll.

Dr. John Patrick Mushat, of Hayneville, senior counsellor of 1881, having died during the year, his name was ordered struck from the roll.

Dr. Frank Tipton, of Selma, senior counsellor of 1882, was reported as having been absent for three successive sessions, and his name was ordered struck from the roll.

JUNIOR COUNSELLORS.

Dr. John Culbreth Hezekiah Jones, formerly of Stone, now of Macon, Mississippi, junior counsellor of 1888, was reported as having left the State, and his name was ordered struck from the roll.

Dr. Edward Pierson Nicholson, of Valley Head, junior counsellor of 1885, was reported absent for three successive sessions, and his name was ordered struck from the roll.

Dr. Thomas Northen, of Ashland, junior counsellor of 1887, tendered his resignation. His resignation was accepted, and his name ordered struck from the roll.

COUNSELLORS ELECT.

The following counsellors elect having signified their acceptance, signed the pledge and paid their dues, their names were ordered to be added to the roll of junior counsellors under date of 1889:

Crook, John Martin, Jacksonville, Calhoun county.
Goode, Rhett, Mobile, Mobile county.
Hudson, William Henry, LaFayette, Chambers county.
LeGrand, John Clark, Anniston, Calhoun county.
Marechal, Edwin Lesley, Mobile, Mobile county.
Toole, Barclay Wallace, Talladega, Talladega county.

The secretary announced that there were nine vacancies in the college of counsellors, whereupon the ballot was ordered and resulted in the following selections:

Barnes, Benjamin Shields, Suggsville, Clarke county.
Deweese, Thomas P., Nauvoo, Winston county.
Dowling, Oscar, Columbia, Henry county.
Duncan, Augustus Meek, West Greene, Greene county.
Lawrence, George Dougherty W., Cedar Bluff, Cherokee county.
Purdon, John Edward, Cullman, Cullman county.
Robinson, Christopher Columbus, Huntsville, Madison county.
Thomason, William Levi, Guntersville, Marshall county.
Wilkerson, Charles A., Marion, Perry county.

The nine senior counsellors whose names here follow, having served the Association as such for ten consecutive years, were

ordered to be transferred to the roll of grand senior counsellors under date of 1880:

Brown, Pugh H., Troy, Pike county.
Cason, Davis Elmore, Ashville, St. Clair county.
Hayes, Robert Hughes, Union Springs, Bullock county.
Peterson, Francis Marion, Greensboro, Hale county.
Rorex, James Polk, Scottsboro, Jackson county.
Sholl, Edward Henry, Birmingham, Jefferson county.
Thomas, James Grey, Mobile county.
Wall, Conrad, Forest Home, Butler county.
Wright, Milton Roil, Gadsden, Etowah county.

The six junior counsellors, whose names here follow, having served as such for five successive years, were ordered to be transferred to the roll of senior counsellors under date of 1885:

Bragg, Shirley, Lowndesboro, Lowndes county.
Goodwin, Albert, Eufaula, Barbour county.
Inge, Henry Tutwiler, Mobile, Mobile county.
Kendrick, Joel Beder, Birmingham, Jefferson county.
Lowry, Samuel Hickman, Huntsville, Madison county.
Whelan, Charles, Birmingham, Jefferson county.

The roll of the college of counsellors was here closed until the next annual meeting of the Association, 1891.

(3) THE REVISION OF THE ROLL OF CORRESPONDENTS.

On the recommendation of the board of censors the name of John Richard Hoffman, M. D., of Athens, was added to the roll of correspondents under date of 1890:

The roll of correspondents was here closed until the next annual meeting of the Association, 1891.

(4) THE REVISION OF THE ROLL OF OFFICERS.

The secretary announced the following vacancies in the roll of officers, namely:

One president, one vice-president for two years, two members of the board of censors and committee of public health for five years, one for one year, one orator, one alternate orator;

whereupon the ballot was ordered and the following results obtained, namely:

President—William Henry Sanders, M. D., Mobile.

Junior Vice-President—William Camp Wheeler, M. D., Huntsville.

Board of Censors and Committee of Public Health—George Augustus Ketchum, Mobile, John Jefferson Dement, Huntsville, for five years; Peter Bryce, Tuscaloosa, for one year, to fill the unexpired term of William Henry Sanders.

Orator—Edward Powell Riggs, Birmingham.

Alternate Orator—Benjamin Leon Wyman, Birmingham.

The roll of officers was here closed until the next annual meeting of the Association in 1891.

Huntsville was selected as the place for holding the next annual session, second Tuesday in April, 1891.

Installation of President and Vice-President.

The president elect, William Henry Sanders, of Mobile, and vice-president William Camp Wheeler, of Huntsville, were escorted to the rostrum, and presented to the Association for installation by Edward Henry Sholl of Birmingham, and Lucius Ernest Starr, of Camden.

Dr. Sanders said that when he reviewed the past and contemplated the future of the Association, he could not help feeling proud at being elevated to the presidency, and would do all in his power to fill the office with credit both to the Association and to himself.

Vice-President W. C. Wheeler, and Orator E. P. Riggs, were then introduced, and in their usual vein of humor, returned thanks to the Association for so honoring them. They would do their duty.

There being no further business—

Dr. Jerome Cochran moved that the Association now stand adjourned without day.

THE ANNUAL REGISTER

OF THE

MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA.

THE BOOK OF THE ROLLS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

INTRODUCTION.—In the Transactions of last year the publishing committee prefaced the rolls of county societies with instructions to secretaries as to their records and the best method of obtaining information concerning them that would pass criticism, but the reports of this year come in with even more glaring errors than before. This should not be, can not be, if secretaries will only place the volume of Transactions before them and take their last reports as a basis of reference. Remember that, when these rolls are once complete, small errors can be readily seen and corrected.

Explanation.—The letters mc stand for medical college; the letters cb stand for county board; when the certificate is issued by the examining board of the county in the register of which it occurs, the name of the county is omitted; when the certificate was issued by the examining board of some other county, the name of such county precedes the abbreviation. The first name in every list of censors is that of the president of the board.

THE ROLL OF THE COUNTY MEDICAL SOCIETIES.

REVISION OF 1890.

AUTAUGA COUNTY MEDICAL SOCIETY—Selma, 1874.

OFFICERS.

Pr. John E. Wilkinson; V. Pr. Archibald S. McKeithen; Sec. Eugene A. King; Tr. Eugene A. King; H. O. Samuel P. Smith; Censors, Charles A. Edwards, Archibald S. McKeithen, John W. Davis, Wyatt W. Golson, John E. Wilkinson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Davis, John Wilson, mc Atlanta 59, cb 80, Prattville.
Edwards, Charles Alva, mc Memphis 59, cb 80, Prattville.
Golson, Wyatt Washington, mc South Carolina 54, cb 80, Autaugaville.

King, Eugene Asbury, mc Atlanta 88, cb 88, Autaugaville.
McKeithen, Archibald Smith, mc univ Virginia 60, cb 80, Prattville.
Pearson, Fletcher, mc Alabama 82, cb 87, Mulberry.
Smith, Samuel Parish, mc univ Louisiana 48, cb 84, Prattville.
Wilkinson, John Edward, mc univ Louisiana 68, cb 80, Prattville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Howard, Charles Campbell, mc Georgia 41, cb 80, Autaugaville.
Sherrell, James Lewis, mc univ Pennsylvania 60, cb 80, Vineton.

Moved out of the county—LeRoy J. Simpson, from Autaugaville to Eufaula, Barbour county.

BALDWIN COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

Pr. Joseph D. Trammell; V. Pr. William M. Lovelady; Sec. P. M. Hodgson; Tr. ———; H. O. William M. Lovelady; Censors, Joseph D. Trammell, William M. Lovelady, P. M. Hodgson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Hodgson, P. M., mc Alabmaa 88, Stockton.
Lovelady, William Milton, cb 82, Theresa.
Trammell, Joseph Dunlap, mc univ Nashville 57, cb 86, Bay Minette.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Fowler, George Huggins, mc univ Pennsylvania 61, cb Mobile 78, Herndon.
Holmes, Origen Sibley, mc Alabama 61, cb 86, Tensaw.
Reynolds, Samuel Kirkpatrick, mc Jefferson 57, cb Mobile 78, Battle's.

Moved into the county—P. M. Hodgson, from Monroe county to Stockton.

Moved out of the county—E. L. Marechal, from Stockton to Mobile.

BARBOUR COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. Albert Goodwin; V. Pr. William H. Robertson; Sec. Simon A. Holt; Tr. Simon A. Holt; H. O. William H. Robertson; Censors, Simon A. Holt, Albert Goodwin, William P. Copeland, Junius K. Battle, Joseph J. Winn.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Battle, Junius Kincade, mc univ Louisiana 83, cb 83, Eufaula.
Brannon, Hugh Lee, mc univ Vanderbilt 85, cb 85, Harris.
Copeland, William Preston, mc Bellevue 70, cb 79, Eufaula.
Davie, Judson, mc Georgia 72, cb 81, Cowikee.

Drewry, James Wallace, mc Jefferson 49, cb 81, Eufaula.
Goodwin, Albert, mc univ Louisville 73, cb 79, Eufaula.
Holt, Simon Augustus, mc univ New York 58, cb 79 Eufaula.
Mitchell, William Augustus, mc univ Louisiana 68, cb 79, Eufaula.
Newberry, Joseph Allen, mc Alabama 87, cb 87, Clio.
Patterson, Thomas, mc Atlanta 69, cb 82, Louisville.
Robertson, William Henry, mc Alabama 87, cb Pike 87, Clayton.
Winn, Joseph Julius, mc Atlanta 68, cb 81, Clayton.

Honorary Members.

Bledsoe, Francis Marion, mc Jefferson 59, cb Georgia 81, Georgetown.
Heron, Edward Marion, mc South Carolina 32, cb 81, Louisville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Battle, Joseph Thomas, mc Georgia 68, cb 87, Hawkinsville.
Belcher, William R., mc Atlanta 89, cb 89, Bush.
Blair, Henry William, mc Atlanta 80, cb 87, Louisville.
Borden, James Thomas, mc Atlanta Southern 85, Louisville.
Crews, Joseph Emmett, mc Georgia 53, cb 79, Clayton.
Faulk, Daniel Winston, one course, not practicing, Clio.
Grubbs, Walter William, one course, Atlanta Southern, Clayton.
Heron, David J., Cadiz.
Huey, George Washington, non-graduate, Bethel.
Mayes, William Robert, mc National 59, cb 82, Clayton.
Pruitt, James Henry, mc univ New York 68, cb 79, Harris.
Reynolds, James Augustus, Botanic mc Ohio 45, cb 82, Pea River.
Russell, William Arnold, Botanic mc Ohio 45, cb 82, Batesville.
Simpson, LeRoy Johnston, mc Bellevue 83, cb Montgomery 83, Eufaula.
Smart, William Alexander, mc univ Louisville 85, cb 86, Clayton.
Turner, Alexander, mc South Carolina 57, cb 79, White Oak.

Moved into the county—James Lawrence Baker, from Seale, Russell county, to Eufaula; LeRoy J. Simpson, from Autaugaville to Eufaula.

Moved out of the county—Robert F. Harper, from Mt. Andrew to Ozark, Dale county, William S. Wimberly, from Eufaula to Henry county.

Deaths—James Lawrence Baker, M. D., mc Atlanta 88, cb Russell 87, Eufaula, thrown from his buggy; James Wesley Clarke, M. D., Kentucky s of m 78, cb 81, Eufaula; Egbert Burr Johnston, M. D., mc Alabama 83, cb 84, Eufaula.

BIBB COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

Pr. Herbert H. McAuley; V. Pr. William J. Nicholson; Sec. Milton C. Shoolar; Tr. Milton C. Shoolar; H. O. Milton C. Shoolar; Censors, James W. Brand, Milton C. Shoolar, Oscar Whitfield, William J. Nicholson, Herbert H. McAuley.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Brand, James Walker, mc univ Virginia 56, cb 78, Randolph.
Cross, William Cyprian, mc univ Vanderbilt 80, cb 81, Blocton.
Crowe, Grattan Bradley, mc Alabama 87, cb 87, Briarfield.
McAuley, Herbert Hudson, mc Kentucky 88, cb 88, Briarfield.
Nicholson, William John, mc univ Vanderbilt 84, cb 84, Centreville.
Shoolar, Milton Carson, mc Alabama 87, cb 87, Centreville.
Whitfield, Oscar, mc univ Vanderbilt 81, cb 81, Briarfield.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dillard, Peter Hairson, mc univ Virginia 70, Tuscaloosa 85, Harrisburg.
Garnier—
Hill, Allen Green, cb (old law) 55, cb Tuscaloosa 83, Green Pond.
James, Frederick M., Centreville.
Jones, Benjamin Franklin, mc Miami, Ohio 86, cb Jefferson 86, Blocton.
Jones, Robert Samuel, cb 82, cb —, Six Mile.
Meadow, Albert Eli, mc Hahneman 83, cb Jefferson 83, Blocton.
Mosely, Edward B., mc Louisiana, Abercrombie.
Randle, Hendrick Washington, mc univ Transylvania, 35, cb 82, Briarfield.
Ray, Jacob Mercer, cb 82, Woodstock.
Sessions, A. H., non-graduate.
Williams, James Milford, mc Georgia 39, cb 77, River Bend.
Wooley, Charles Lewis, Randolph.

Moved into the county—Peter H. Dillard, from Sawyerville, Hale county, to Harrisburg; Herbert H. McAuley, from Dalton, Ga., to Briarfield.

Moved out of the county—Frederick F. Gage, from Briarfield to Huntsville; Dana Monroe, from Woodstock to Vance Station, Tuscaloosa county.

BLOUNT COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

Pr. Alvin S. Davidson; V. Pr. ———; Sec. Milton H. Collins; Tr. Milton H. Collins; H. O. William M. Cole; Censors, Alvin S. Davidson, William B. Allgood, Luther D. Wikle, Joseph F. Hendricks, Francis N. Hudson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST OFFICES.

Allgood, William Barnett, mc Southern 81, cb 78, Chepultepec.
Berrier, John Henry, cb Cullman 86, Bangor.
Cole, William Milton, mc Southern 86, cb 86, Blountsville.
Collins, Milton Homer, mc univ Tennessee 84, cb 84, Blountsville.
Davidson, Alvin Steele, cb 78, Selfville.

Donehoo, Floyd George, mc Southern 81, cb 81, Murphree's Valley.
Estell, Samuel Henderson, cb Sumter 76, Blount Springs.
Gillespie, Felix Alexander, mc Alabama 89, cb 89, Hanceville.
Haden, Andrew Wade, mc univ Vanderbilt 82, cb 84, Summit.
Haden, Henry Hughes, mc univ Vanderbilt 85, cb 86, Summit.
Hendricks, Joseph Francis, mc Southern 83, cb 84, Wynnville.
Hudson, Frank Newton, mc univ Nashville 74, cb Madison 78, Blountsville.
McAnally, Christopher Columbus, cb 82, Anderton.
Moore, David Samuel, mc Atlanta 80, cb 81, Wynnville.
Self, George Washington, mc univ Tennessee 89, cb 89, Murphree's Valley.
Whaley, John Peters, cb 84, Blount Springs.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Alldridge, Patrick George, mc Atlanta 75, cb 82, Brooksville.
Boyd, James W., non-graduate, Sneed.
Clapp, William King, Gum Spring.
Findley, William Marshal, mc univ Vanderbilt, Village Springs.
Martin, Henry Bailey, Arkadelphia.
Robinson, Henry Burnes, cb —, Blount Springs.
Scaife, Samuel, mc Baltimore 89, cb 89, Manningham.
Willoughby, John Henchia, cb 78, Garden City.

Moved out of the county—Milton J. Ingraham, from Hanceville to Warrior, Jefferson county.

Examinations—For the practice of medicine, Felix A. Gillespie, mc Alabama 89, cb 89, Hanceville; George W. Self, mc univ Tennessee 89, cb 89, Murphree's Valley. Certificates awarded.

BULLOCK COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

Pr. William B. Thomason; V. Pr. Lewellen Sessions; Sec. Samuel C. Cowan; Tr. Henry M. Hunter; H. O. Robert H. Hayes; Censors, Samuel M. Hogan, Charles H. Franklin, Robert H. Hayes, Nathaniel M. Bledsoe, William A. Walker.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST OFFICES.

Bledsoe, Nathaniel Macon, mc univ Nashville 57, cb 80, Union Springs.
Butt, Richard Lemuel, mc univ New York 46, cb 80, Midway.
Caldwell, Groves, mc univ Pennsylvania 45, cb 80, James.
Chandler, Mosely Stuart, mc Atlanta 90, cb 90, Enon.
Cowan, Samuel Calvin, mc Alabama 89, cb 89, Union Springs.
Crymes, Augustus Clayton, mc Jefferson 56, cb 90, Midway.
Darnell, Benjamin Franklin, mc Atlanta, 55, cb 83, Inverness.

Franklin, Charles Higgs, mc univ Louisiana 66, cb 80, Union Springs.
Grimes, Erasmus Darwin, mc univ Louisville —, cb Jefferson —, Fitzpatrick.
Hayes, Robert Hughes, mc St. Louis 79, cb 80, Union Springs.
Hogan, Samuel Mardis, mc univ Louisville 73, cb 80, Union Springs.
Hunter, Henry Mitchell, mc phy and surg Baltimore 86, cb Russell 87, Union Springs.
Leitner, Charles Backus, mc univ Maryland 47, cb 85, Flora.
Mayes, William Aurelius, mc Georgia 55, cb 85, Midway.
Reynolds, James Henry, mc univ Nashville 85, cb 80, Mt. Hilliard.
Reynolds, William Anderson, mc Alabama 85, cb 85, Mt. Hilliard.
Sessions, Lewellen, mc Georgia 48, cb 87, Union Springs.
Thomason, William Bartlett, mc Georgia 54, cb 80, Aberfoil.
Walker, William Austin, mc Jefferson 54, cb 85, Perote.
Zeigler, William Olin, mc one course Atlanta 80, cb 80, Perote.

Honorary Members.

Banks, Newton Paley, mc univ Louisville 49, Columbus, Ga.
Harris, William Samford, mc univ New York, Dick's Creek.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Ivey, Barna Pitt, mc Alabama 86, cb Marion 88, Midway.
Rumph, James David, mc South Carolina 36, cb 80, Perote.
Shirley, James A., without authority of law, Post Oak.
Swanson, William Schley, mc Atlanta 57, cb 80, James.

Moved into the county—Barna Pitt Ivey, from Montgomery to Midway; E. D. Grimes, from Birmingham to Fitzpatrick.

Moved out of the county—Charles James Ayers, from Hector to Tennessee.

Examinations—For the practice of medicine, Samuel Calvin Cowan, mc Alabama 87, cb 89, Union Springs; Mosely Stuart Chandler, mc Atlanta 90, cb 90, Enon. Certificates awarded.

BUTLER COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

Pr. Joel C. Kendrick; V. Pr. Robert E. Smith; Sec. Curtis B. Herbert; Tr. ——; H. O. Job. Thigpen; Censors, Curtis B. Herbert, Joel C. Kendrick, Job Thigpen, Henry G. Perry, Conrad Wall.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allman, James E., mc Savannah 69, cb 79, Georgiana.
Broughton, John Thomas, mc univ Pennsylvania 52, cb 79, Greenville.
Donald, John Gordon, mc Louisiana 54, cb 78, Monterey.
Herbert, Curtis Burk, state board 79, Greenville.
Kendrick, Joel Cloud, mc univ Nashville 52, cb 78, Greenville.

Knight, Comer John, mc New Orleans 58, cb 78, Greenville.
Lloyd, Cary Chappelle, mc Atlanta 58, cb 78, Greenville.
McCane, James Jordan, mc Louisiana 82, cb 82, Greenville.
Murphy, Robert Neil, mc Alabama 62, cb 84, Georgiana.
Owen, Jared Douglass, mc Alabama 79, cb 79, Manningham.
Perry, Samuel George, mc Georgia Reform 88, Bolling.
Simmons, William Cleveland, cb 79, Manningham.
Smith, Robert Edward, mc Alabama 82, cb 83, Toluca.
Smith, William Robert, mc Alabama 86, cb 86, Oakey Street.
Thigpen, Job, mc Georgia 56, cb 78, Greenville.
Wall, Conrad, mc univ Nashville 59, cb 78, Greenville.
Webb, Owen Foster, mc Alabama 80, cb 80, Daisy.
Wright, William Pendleton, cb 78, Bolling.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Brown, William Abner, cb Tuscaloosa, Garland.
Campbell, Archibald Graham, cb Elmore 84, Dunham.
Grissett, William Paners, mc Alabama 72, cb Conecuh 84, Garland.
Garrett, James Jefferson, mc Georgia Reform 82, Monterey.
Hall, R. H., non-graduate, Shell.
Harrison, Joseph, mc South Carolina 52, cb 84, Greenville.
Perdue, James Lewis, mc Alabama 75, cb 79, Greenville.
Scott, Harvey Edward, mc univ Vanderbilt 80, Georgiana.
Steiner, Samuel Jackson, mc univ Vanderbilt 79, cb 79, Greenville.
Stewart Arthur Samuel, mc univ Louisville 82, Greenville.

Moved out of the county—Joel Beder Kendrick, from Greenville to Birmingham.

CALHOUN COUNTY MEDICAL SOCIETY—Montgomery, 1881.

OFFICERS.

Pr. Robert L. Bowcock; V. Pr. John M. Whiteside; Sec. James H. McDuffie; Tr. Edward C. Anderson; H. O. Thomas W. Ayers; Censors, Thomas C. Hill, John M. Crook, Henry Mabbett, Walter H. Bell, James H. McDuffee.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Anderson, Edwards Clark, mc Kentucky 77, cb 85, Anniston.
Arbery, William Buchanan, mc univ Vanderbilt 82, cb Macon 82, Anniston.
Ayers, Thomas Willborn, mc phy & surg Baltimore 83, cb 86, Jacksonville.
Bell, Walter Howard, mc Atlanta 88, cb 88, Anniston.
Bowcock, Robert Lee, mc univ Virginia 86, cb 88, Anniston.
Brothers, Phillip Houston, cb old law 41, cb 86, Cane Creek.

Buckalew, Ansel Milbran, mc univ Louisville 70, cb 86, DeArmanville.
Bullard, Aurelius Francis, mc Jefferson one course 76, cb 81, Oxford.
Christian, McAns Thomas Williams, mc Georgia one course 57, cb Cherokee, old law 58, Oxford.
Crook, John Martin, mc phy & surg Baltimore 85, cb 86, Jacksonville.
Davis, John Francis Marion, mc Atlanta 60, cb 81, Chocolocco.
Gordon, Frederick Elliott, mc Alabama 82, cb Marengo 82, Anniston.
Hill, Thomas Calhoun, mc South Carolina 60, cb 84. Oxford.
Huger, Richard Proctor, mc South Carolina 71, cb 81, Anniston.
Kelley, John Baker, mc Jefferson 59, mc Coosa 84. Anniston.
LeGrand, John Clark, mc Atlanta 80, cb 81, Anniston.
Ligon, Anthony Wellington, mc univ Vanderbilt 83, cb 84, Oxford.
Mabbett, Henry, mc Savannah 76, cb 83, Anniston.
McCurry, Samuel Josephus, mc Atlanta 80, cb Cherokee 81, Anniston.
McDairmid, John Calhoun, mc Georgia, one course 55, cb Clay 83, Oxford.
McDuffie, James Henry, mc univ Maryland 87, cb 89, Anniston.
McRea, Francis Marion, cb Cleburne 81, Ohatchee.
Smith, William Armistead, mc Alabama 81, cb Monroe 81, Anniston.
Stone, Sardine G., mc Alabama 87, cb 87, Jacksonville.
Walker, James, Fleming, cb 81, Anniston.
Warren, William J., mc Atlanta 89, cb Tallapoosa 89, Anniston.
Whiteside, John Marshall, mc univ Vanderbilt 84, cb 84, Oxford.
Wikle, Jesse Lane, mc Georgia 79, cb 81, Anniston.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bolling, William Elsberry, cb 81, Davisville.
Crook, James Edward, mc univ Vanderbilt 83, cb 83, Alexandria.
Davis, Thomas Asbury, mc univ Louisiana 57, cb 84, Anniston.
Douthit, Jackson A., cb 81, Alexandria.
Evans, Benjamin Shumate, cb 81, White Plains.
Garber, John B., cb Montgomery, Anniston.
Hughes, John Leander, mc Georgia 51, cb 83, Piedmont.
Jemison, Lewis, mc univ Pennsylvania 58, cb 90, Anniston.
Kinabrew, William Henry, mc univ New York 78, cb 83, Piedmont.
Linder, Pleasant Phillips, cb 81, Jacksonville.
Overton, John Wesley, mc univ Louisville 87, cb 88, Anniston.
Teague, Robert George, cb 81, Piedmont.
Williams, Benjamin Dudley, cb 81, Oxford.
Williams, George Coke, cb 81, White Plains.
Williamson, Thomas, cb 84, Peak's Hill.
Harvey, Lewis Clay, mc Louisiana 61, Mims' Station.

Moved into the county—William B. Arbery, from Notasulga, Macon county; Samuel G. McCurry, from Stock Mills, Cherokee county; James Henry McDuffie, from Keyser, N. C.; Lewis Jemison, from Bor-

dentown, N. J.; William A. Smith, from Monroe county; William J. Warren, from Tallapoosa county, and James R. Garber, from Colorado to Anniston; B. Dudley Williams, from Indian Territorry to Oxford.

Moved out of the county—Robert Emmet Cochran, from Anniston to Marshall county; Charles H. Montgomery, from Jacksonville to Texas; John Martin Sorrell, from Anniston to Cleburne county; Lemuel V. White, from Anniston to Whiton, DeKalb county.

Examinations—For the practice of medicine, James Henry McDuffie, mc univ Maryland, certificate awarded; Charles A. Vinson, certificate refused.

Deaths—John Washington Pearce, M. D., mc Georgia 52, cb 85, Oxford, of hepatitis.

CHAMBERS COUNTY MEDICAL SOCIETY—Montgomery, 1881.

OFFICERS.

Pr. William H. Hudson; V. Pr. ——; Sec. Albert H. R. Frederick; Tr. Albert H. R. Frederick; H. O. William M. Gay; Censors, Benjamin F. Rea, Sr., Albert H. R. Frederick, William M. Gay, Zachary T. Grady, Asa W. Griggs, William H. Hudson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST OFFICES.

Beasley, James Albert, mc Atlanta 72, cb 82, Fredonia.
Brice, Hilary Samford, mc Atlanta 82, cb 82, Waverly.
Cooper, John William, mc South Carolina 45, cb 84, Mill Town.
DeVaughn, John Wesley, mc univ Vanderbilt 83, cb 83, Five Points.
Foster, Benjamin Jesse, mc Georgia 70, cb 85, Five Points.
Frederick, Albert H. Roland, mc univ New York 56, cb 82, LaFayette.
Gay, William McCurry, mc South Carolina 81, cb 82, Mill Town.
Grady, Zachary Taylor, mc Atlanta 76, cb 86, Fredonia.
Griggs, Asa Wesley, mc univ Nashville 55, cb 82, West Point.
Hudson, William Henry, mc Atlanta 86, cb 86, LaFayette.
Kirby, Charles Windham, mc Georgia 84, cb 85, West Point.
Perry, Charles Franklin, mc Atlanta 78, cb 82, LaFayette.
Rea, Benjamin Franklin, Sr., mc Jefferson 42, cb 82, LaFayette.
Rea, Benjamin Franklin, Jr., mc Alabama 85, cb 86, LaFayette.
Rutland, John Blake, mc Georgia Southern 80, cb 82, Fredonia.
Tyson, William Watson, mc Georgia 54, cb 85, West Point.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bonner, Thomas Harrison, mc Atlanta 84, cb Randolph 84, Hickory Flat.
Carmichael, Lawrence Greene, mc Graffenburg 57, cb 82, Hickory Flat.

Crawford, Daniel, mc Atlanta 86, cb 86, Cusseta.
Davis, James Lawrence, mc South Carolina 45, cb LaFayette.
Hamner, Lovick Pierce, cb Randolph 82, Five Points.
Johnson, Howard Alexander, mc Tuscaloosa 81, Mill Town.
Pinkston, James Preston, mc Graffenburg 57, cb 82, Sharon.
Smith, Lawrence, mc Georgia 54, cb 86, Cusseta.
Stadgill, Robert James, mc Georgia Southern 81, cb 86, Fredonia.

Moved out of the county—C. C. Davis, Robert Lee Gilder, from LaFayette.

Examinations—For the practice of medicine, C. C. Davis, H. T. Hamner.

CHEROKEE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. Thomas N. White; V. Pr. ——; Sec. Robert L. McWhorter; Tr. Edward A. Cook; H. O. George D. W. Lawrence; Censors, Thomas N. White, Ellis W. Ward, Alexander P. Richardson, Norman F. Cabot.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST OFFICES.

Barge, Josiah Littleton, mc Atlanta 87, cb 88, Rock Run.
Cabot, Norman Franklin, mc univ New York and Vanderbilt 78, cb 87, Centre.
Cook, Edward Augustus, mc univ Vanderbilt 84, cb 84, Kirk's Grove.
Farill, John Paul, mc Atlanta 81, cb 87, Farill.
Lawrence, Geo. Dougherty Washington, mc Georgia 56, cb 87, Cedar Bluff.
McWhorter, Albert Lee, mc Alabama 86, cb 86, Gaylesville.
Miller, Thomas Gideon, mc Kentucky 86, cb 87, Gaylesville.
Richardson, Alexander P., cb 87, Key.
Ward, Ellis William, mc phy and surg Baltimore 87, cb 86, Centre.
White, Thomas Noel, mc Georgia 58, cb 87, Spring Garden.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Atkinson, Thomas C., Ball Flat.
Bell, Stephen B., mc Philadelphia Eclectic, Esom Hill, Ga.
Bomar, Richard Ritter, mc Georgia Southern 85, cb 87, Key.
Brown, Alexander M., cb 87, Leesburg.
Elliott, Theodoric Miles, mc Kentucky 86, cb 87, Gaylesville.
Camp, Ellis James, cb 89, Tecumseh.
Carr, Robert C., cb 89, Rock Run.
Echols, Edward D. J., cb 87, Cedar Bluff.
Farill, John Washington, cb 87, Farill.
Gilder, Stephen B.
Mathews, John Patrick, mc univ Nashville 87, cb 87, Maple Grove.

McGehee, Robert Hallens, mc univ Vanderbilt 87, Round Mountain.
Shamblin, Alexander, cb 87, Broomtown.
Shamblin, John Levi, mc Atlanta 88, cb 87, Broomtown.
Sparks, Blassingame Clayton, mc Georgia 58, cb 87, Centre.
Tate, Charles Nathaniel, cb 87, Alexis.
White, Barnabas Pace, mc Georgia 56, cb 87, Centre.
White, William Yancey, mc univ Nashville and Vanderbilt 87, cb 87, Spring Garden.
Wright, A. W., mc univ New York 76, Cave Springs, Ga.

Moved out of the county—William J. D. Lawrence, from Cedar Bluff to Turkeytown, Etowah county; George W. McCurry, from Stock Mills to Anniston; Abbott M. McWhorter, from Gaylesville to Collinsville, DeKalb county.

CHILTON COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

Pr. Hugh T. Caffey; V. Pr. Joseph S. Johnson, Sr.; Sec. Hugh T. Caffey; Tr. Hugh W. Caffey; H. O. ———; Censors, John A. McNeil, William E. Stewart, Joseph S. Johnson, Sr.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST OFFICES.

Bivings, Albert Eugene, mc South Carolina 75, cb 82, Clanton.
Caffey, Hugh Thomas, mc univ Tennessee 83, cb Lowndes 83, Clanton.
Caffey, Hugh William, mc South Carolina 55, cb Lowndes 83, Verbena.
Givhan, Joseph Phillip, mc Alabama 73, cb Dallas 78, Jemison.
Johnson, Joseph Samuel, Sr., mc Georgia 59, cb Dallas 79, Maplesville.
Mathews, Emmet Abrams, state board 86, Clanton.
McNeill, Jno. Archibald, mc univ Vermont 53, cb 79, Jemison.
Stewart, William Eugene, mc univ Louisville 75, cb 79, Clanton.
Williamson, William Thomas, mc South Carolina 58, cb 79, Verbena.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Collier, Thomas Eugenius, mc Pennsylvania 57, cb 82, Collierville.
Dawson, James Jefferson, Kincheon.
Johnson, Joseph Samuel, Jr., mc Baltmore 76, Clanton.
Little, William W., Stanton.
Pitts, Joseph Spate, mc univ Nashville 68, cb 79, Verbena.
Wise, John F., mc Graffenburg 56, cb 79, Cooper's.

The report here given is that of last year.

CHOCTAW COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

Pr. Robert B. Carr; V. Pr., Evan P. Harris; Sec. William F. Kimbrough; Tr. William F. Kimbrough; H. O. Robert B. Carr; Censors, Robert B. Carr, Robert F. Moody, Ferdinand P. Clarke, Evan P. Harris, William F. Kimbrough.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Carr, Robert Bryan, mc univ Louisville 82, cb Sumter 82, Pushmataha.
Clarke, Ferdinand P., mc Alabama 84, cb 84, Bevill's Store.
Coleman, Robert Henry, Jr., mc Jefferson 82, cb 79, Isney.
Coleman, Walter Jackson, mc Alabama 88, cb 88, Isney.
Gilmore, Abram Bessant, mc Alabama 72, cb 79, Butler.
Harris, Evan P., mc univ Louisiana 68, cb 79, Rosser.
Harris, Robert J., mc univ Louisville 89, cb 89, Pennington.
Johnson, William Wesley, mc Alabama 72, cb 79, Melvin.
Johnson, Samuel F., cb 81, Butler.
Kimbrough, William Floyd, mc Alabama 83, cb 83, Mt. Sterling.
McCall, Daniel, mc Atlanta 59, cb 79, DeSotoville.
McNeeley, John Newton, mc univ Louisiana 58, cb 79, Mt. Sterling.
Moody, Robert Franklin, mc univ Louisiana 60, cb 79, Butler.
Mooney, Jefferson Beri, mc univ Louisville 89, cb 89 Hurricane Creek, Miss.
Needham, Eli W., mc univ Louisiana 58, cb 79, Lusk.
Phillips, Jacob Parker, mc Alabama 86, cb 86, Yantley Creek.
Shamberger, William B., mc univ Louisville 83, cb 88, Yantley Creek.
Turner, Mathew, mc univ Pennsylvania 58, cb 79, Bladen Springs.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Anderson, Alexander W., mc univ Louisiana 53, cb 87, Burgamot.
Brown, Collin Balsam, mc univ Nashville 80, cb 83, Melvin.
Shoemaker, Lewis, cb 80, Womack Hill.

Moved out of the county—Robert Henry Coleman, Jr., to Buckatunna, Miss.; William Henry Cunningham to Cunningham, Clarke county; Thomas A. Knighton, from Pennington to York Station, Sumter county.

CLARKE COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

Pr. Gross S. Chapman; V. Pr. John A. Gilmore; Sec. James W. Armistead; Tr. John A. Gilmore; H. O. James W. Armistead; Censors, Benjamin S. Barnes, Henry G. Davis, Gross S. Chapman, Bryan Boroughs, John W. Fleming.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Armistead, James Westwood, mc Alabama 83, cb 84, Grove Hill.
Barefield, Henry Litman, mc Alabama 72, cb Pickens 87, Gosport.
Barnes, Benjamin Shields, mc univ Pennsylvania 59, cb 84, Suggsville.
Boroughs, Bryan, mc univ Louisville 69, cb 84, Vashti.
Chapman, Gross Scruggs, mc Alabama 79, cb Conecuh 83, Jackson.
Dahlberg, Charles James, mc Alabama 87, cb Choctaw 87, Suggsville.
Davis, Henry George, mc Alabama 72, cb 84, Gainestown.
Durden, Henry Jefferson, mc South Carolina 83, cb 87, Choctaw Corner.
Fleming, John William, mc Alabama 79, cb 84, Salitpa.
Gilmore, John Arcade, mc univ Louisville 86, cb 86, Thomasville.
Harwood, Thomas Broadnax, mc univ Louisville 60, cb 84, Tallahatta Springs.
Hicks, Lamartine Orlando, mc Alabama 73, cb 84, Walker Springs.
Jones, Green Irwin, mc Atlanta 82, cb 84, Coffeeville.
Lindsey, James Davidson, cb 84, Lower Peach Tree, Wilcox county.
Prim, Thomas Jefferson, cb 84, Salitpa.
Pugh, Sidney Stewart, mc univ Louisiana 89, cb 89, Grove Hill.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Armistead, Lee, non-graduate, Marvin.
Bush, Boaz Whitfield, mc South Carolina 58, cb 84, Choctaw Corner.
Davis, James Madison, mc univ Louisiana 61, cb 84, Bashi.
Jeffrey, James Grey, mc Alabama, 88, cb Wilcox 88, Horeb.
Thredgill, James, Thomasville.
Webb, Sidney Vaughn, mc Jefferson 68, cb 84, Coffeeville.
White, Thomas B., mc univ Virginia, Hood's Bluff.

Moved out of the county—Bryan W. Grant, from Grove Hill to Burke Station, Louisiana; Robert V. Mobley, from Thomasville to Birmingham.

Examinations—For the practice of medicine, Robert Vernon Mobley, Sidney Stewart Pugh, mc univ Louisiana 89, cb 89, Grove Hill. Certificates awarded.

Deaths—Burrell Middleton Allen, M. D., mc univ Louisiana 59, cb 84, Marvin, of congestion; George Washington Files, M. D., mc univ Louisiana 59, cb 84, Gosport, of paralysis; William Lemuel Findley, M. D., mc s of m Kentucky 87, cb 87, Thomasville, of typho-malarial fever.

CLAY COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. Geo. W. Bartlett; V. Pr. Geo. N. Sims; Sec. Charles S. Northen; Tr. Wm. M. Scarborough; H. O. Aaron L. Harlan; Censors, Thos. Northen, A. K. McDairmid, W. F. Irvin, A. L. Harlan, W. H. Blake.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bartlett, Geo. Washington, non-graduate, cb 87, Black's Store.
Blake, Wyatt Heflin, mc univ Vanderbilt 84, cb Randolph 85, Lineville.
Conway, Magnus E., mc univ Vanderbilt 88, cb Coosa 88, Hollins.
Callaway, Geo. McDaniel, mc Alabama 89, cb 89, Pinckneyville.
Darby, Cunningham Wilson, non-graduate cb 87, Hatchett Creek.
Harlan, Aaron LaFayette, mc Alabama 86, cb Tallapoosa 86, Ashland.
Irwin, William Fletcher, mc univ Louisville 87, cb 87, Millerville.
Jenkins, William Oliver, mc Graffenburg 60, cb 87, Lineville.
Liles, Marion DeKalb, non-graduate, cb 87, Lineville.
Manning, John Thomas, mc univ Vanderbilt 85, cb 87, Wheelerville.
McDairmid, Angus Kelly, mc Alabama 72, cb 87, Hollins.
Northen, Thomas, mc Atlanta 78, cb 87, Ashland.
Northen, Charles Stephen, non-graduate, cb 89, Lineville.
Owen, Seaborn Wesley, mc univ Louisville 83, cb 87, Bluff Springs.
Scarborough, William Miles, non-graduate, cb 87, Ashland.
Sims, George Napoleon, mc Graffenburg 56, cb 87, Ashland.
Stephens, Albert Russell, mc Southern 88, cb 88, Delta.
Waits, Owen Kynyan, mc Graffenburg 56, cb 87, Lineville.
Wiley, James Stiles, non-graduate, cb 89, Mellow Valley.

PHYSICANS NOT MEMBERS OF THE SOCIETY.

Harris, David C., Delta.
McClintock, Henry M., Delta.
Simmons, Bibb, ———.

Moved into the county—Thomas Northen, from Heflin, Cleburne county, to Ashland.

Moved out of the county—R. S. Nolen, from Bluff Springs to Equality, Coosa county.

Examinations—For the practice of medicine, George M. Callaway, mc Alabama 89; R. S. Nolen, mc univ Louisville 89. Certificates awarded.

CLEBURNE COUNTY MEDICAL SOCIETY—Selma, 1884.

OFFICERS.

Pr. James P. Hurt; V. Pr. ———; Sec. William S. Neal; Tr. Lewis W. Pitchford; R. O. Orlando W. Sheppard; Censors, William M. Ligon, Orlando W. Sheppard, William A. Neal, Lewis W. Pitchford.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST OFFICES.

Baker, James Lewis, mc Atlanta Southern 83, cb 84, Oak Level.
Hurt, James P., cb 84, Edwardsville.
Johns, Thomas Jefferson, mc Alabama 88, cb 88, Mt. Hope.

Ligon, Wilson Milton, mc Georgia 61, cb 84, Chulafinnee.
Martin, Hicks, Jr., mc Georgia 83, cb 85, Benson's Mills.
McClintock, James L., Heflin.
Neal, Robert L., mc Atlanta Southern 86, cb 89, Heflin.
Neal, William Alexander, mc Georgia 81, cb 84, Heflin.
Pitchford, Lewis W., mc South Carolina 88, cb 89, Arbacoochee.
Sheppard, Orlando Waters, mc Graffenburg 56, cb 84, Edwardsville.
Wood, Hiram Alexander, cb —, Chulafinnee.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Hobgood, Samuel B., mc Atlanta, Borden Springs.
Hudgeons, N. C., non-graduate, cb 84, Oak Level.
Martin Hicks, Sr., cb 86, Heflin.
Pounds, William Lawrence, mc Atlanta Reform, cb 84, Muscadine.
Powers, R. L., non-graduate.
Reid, Jesse Thomas, cb 84, Edwardsville.
Roberts, Charles B., non-graduate, Oak Level.
Simpson, John L., ———.

Moved into the county—Hicks Martin, Sr., from Carroll county, Georgia, to Heflin.

Moved out of the county—Thomas Northen, from Heflin to Ashland, Clay county.

Examinations—For the practice of medicine, Robert L. Neal, mc Southern 86, cb 89, Heflin; Lewis W. Pitchford, mc Southern 88, cb 89, Arbacoochee. Certificates awarded.

COFFEE COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

Pr. Francis M. Rushing; V. Pr. ———; Sec. Benjamin A. Hill; Tr. Josephus D. Blue; H. O. Francis M. Rushing; Censors, Francis M. Rushing, John W. Garrett, William H. Crook, Benjamin A. Hill, Josephus D. Blue.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Blue, Josephus Dickson, mc New Orleans 61, cb 85, Elba.
Crook, William Henry, mc Alabama 84, cb 84, Victoria.
Garrett, John Wilkerson, mc univ Louisville 85, cb 85, Elba.
Hill, Benjamin Augustus, mc Graffenburg 57, mc Alabama 60, cb 85, Elba.
Rushing, Francis Marion, mc univ Louisiana 61, cb 85, Elba.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carter, James Peterson, cb 88, Damascus.
Cowart, William Augustus, cb 87, Frisco.

Howell, David D., mc South Carolina, cb Geneva 85, Clintonville.
Parkman, John D., Damascus.
Steed, John Garrett, mc univ Nashville 56, cb 85, Haw Ridge.
Wilson, William Augustus, mc Georgia, cb 85, Rocky Head.

Moved into the county—David D. Howell, from Geneva to Clintonville.

COLBERT COUNTY MEDICAL SOCIETY—Montgomery, 1881.

OFFICERS.

Pr. Edward P. Rand; V. Pr. C. W. Blair; Sec. William W. Prater; Tr. Samuel J. Cooper; H. O. Samuel J. Cooper; Censors, William W. Prater, Hugh W. Blair, Alexander A. Wall, Samuel J. Cooper, David H. Walker.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Blair, Hugh Walter, mc univ Vanderbilt 85, cb 88, Sheffield.
Cooper, Samuel Johnston, mc Memphis 71, cb 81, Tuscumbia.
Houston, James Marshall, Jefferson 57, cb 81, Dickson.
McWhorter, George Tilghman, cb Madison 81, Chickasaw.
Morris, Charles Thomas, mc univ Louisville 75, cb Henry 80, Sheffield.
Palmer, Charles Richard, mc univ Vanderbilt 83, cb 84, Barton.
Prater, William Warren, mc univ Nashville 82, cb 88, Sheffield.
Pride, Joseph Peebles, mc univ New York 55, cb 81, Pride's Station.
Rand, Edward Pearsall, mc univ Louisville 72, cb 81, Tuscumbia.
Walker, David Harris, mc univ Vanderbilt 82, cb 82, Spring Valley.
Wall, Alexander Alford, mc univ Pennsylvania 49, cb Madison 74, Tuscumbia.
Williams, Charles Washington, mc univ Nashville 72, cb 81, Chickasaw.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abernathy, Robert Towns, mc univ New York 49, cb 81, Tuscumbia.
Adams, John Martin, Sheffield.
Blair, Hugh Allen, mc univ Nashville 56, Sheffield.
Boyd, Philander Sumner, mc univ Tennessee 88, Sheffield.
Ellis, Wiley Martin, mc univ Louisville 70, retired, Chickasaw.
Johnson, Beverly, Tuscumbia.
McCloskey, James A., Dug.
Moore, Robert J., Chickasaw.
Newsome, Benjamin Franklin, mc univ Louisville 40, old law, cb 54, Tuscumbia.
O'Riley, John Edmund, mc Alabama 74, cb 84, Cherokee.
Smith, James Clarke, mc univ Vanderbilt 85, cb Elmore 85, Tuscumbia.
Sullivan, William Bailey, mc univ Nashville 84, Allsboro.

Moved into the county—Hugh Allen Blair, from Lebanon, Tennessee; Philander Sumner Boyd, from Nashville to Sheffield.

Moved out of the county—John Wirt Brown, from Sheffield to Pennsylvania; Thomas James Turpin, from Sheffield to Tallulah, Louisiana; Charles McAlpin Watson, from Tuscumbia to Florence; William Camp Wheeler, from Cherokee to Huntsville.

CONECUH COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

Pr. Andrew Jay; V. Pr. Adam A. McKittrick; Sec. Adam A. McKittrick; Tr. Adam A. McKittrick; H. O. Adam A. McKittrick; Censors, Andrew Jay, Pinkney M. Bruner, Hugh T. Fountain, William C. Shaw.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bruner, Pinkney McDonald, mc Alabama 79, cb Butler 79, Evergreen.
Feagin, Aaron Pinson, mc Atlanta 60, cb 84, Brooklyn.
Fountain, Hugh Thomas, mc Alabama 72, cb Monroe 79, Burnt Corn.
Jay, Andrew, mc Alabama 72, cb 84, Evergreen.
McKittrick, Adam Alexander, mc Georgia 60, cb 84, Evergreen.
Shaver, William Benjamin, mc Georgia Reform 60, cb 84, Herbert.
Shaw, William Chesley, mc Alabama 85, cb 88, Bellville.
Taliaferro, Charles Thomas, mc Atlanta 59, cb 84, Evergreen.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bradley, Ely, mc Jefferson 57, cb 84, Bellville.
Corbin, Joshua Allen, without authority of law.
Feagin, William Americus, without authority of law.
Lee, Robert Augustus, mc univ Louisiana 60, cb 84, Evergreen.
McCreary, John Absalom, mc univ Louisiana 60, cb 84, Evergreen.

Moved out of the county—Mack Rogers, to Birmingham.

Examinations—Mack Rogers, mc Alabama 89; William Chesley Shaw, mc Alabama 85, cb 89, Bellville. Certificates granted.

COOSA COUNTY MEDICAL SOCIETY—Birmingham, 1883.

OFFICERS.

Pr. William H. Moon; V. Pr. Simon O. Humphries; Sec. Julius Jones; Tr. Julius Jones; H. O. William E. Maxwell; Censors, William H. Moon, William I. Peddy, Julius Jones, Simon A. Humphries, James J. Coker.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bailey, William, non-graduate, cb 83, Equality.
Bryant, Alexander Thomas, mc univ Louisville 90, cb Clay 87, Goodwater.
Coker, James Jasper, non-graduate, cb 83, Rockford.
Crowson, Richard Jasper, mc univ Vanderbilt 82, cb 82, Weogufka.

Humphries, Simon Oceola, mc Jefferson 85, cb Elmore 85, Nixburg.
Jones, Julius, mc univ Vanderbilt 84, cb 84, Rockford.
Mathews, John Thomas, mc New Orleans 73, cb 84, Hanover.
Maxwell, William Elmore, mc Jefferson 85, cb 85, Kelleyton.
Moon, William Henry, mc Alabama 79, cb 83, Goodwater.
Nolen, Richard Spencer, mc Kentucky 89, cb 89, Equality.
Peddy, William Jeremiah, mc Graffenburg 55, cb 83, Rockford.
Peterson, Albert James, mc univ Vanderbilt 89, cb 89, Hanover.
White, William Tanner, mc univ Tennessee 86, cb 86, Nixburg.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Coker, Martin James, non-graduate, cb Clay 87, Goodwater.
Dollar, Henry Clay, mc Atlanta 75, cb 83, Marble Valley.
Goggans, Phillip Peterson, mc univ New York 80, cb Elmore 84, Travelers' Rest.
Parker, Eli,———, Nixburg.
Parker, Lewis Berry,———, Travelers' Rest.
Pope, Chandler Mathews, mc Jefferson 57, cb 83, Goodwater.
Salters, Preston B.,———, Goodwater.

Moved out of the county—John L. Simpson, from Goodwater to Anniston, Calhoun county.

Examinations—In pharmacy, John L. Fleming. Certificate awarded.

COVINGTON COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

Pr. William J. Head; V. Pr. William N. Street; Sec. John F. Pendry; Tr. Cicero Jones; H. O. William J. Head; Censors, William J. Head, John F. Pendry, William N. Street.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Grubbs, William W., mc univ Louisville 89, cb 90, Rose Hill.
Head, William J., mc Georgia 76, cb 89, Andalusia.
Jones, Cicero, mc univ Vanderbilt 90, cb Pike 90, Andalusia.
McNair, William N., mc Alabama 90, cb 90, Red Level.
Pendry, John F., mc Alabama 81, cb Crenshaw 82, Rose Hill.
Sentell, Wilbur Eugene, mc Alabama 89, cb 90, Red Level.
Street, William N., state board 88,———, Hatton.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Atkinson, Alexander G., non-graduate,—— —, Red Level.
Cawthorn, Samuel J. S., non graduate, cb 90, Andalusia.
Patrick, Thomas, non-graduate, ——, Green Bay.
Roberts, James M., non-graduate, ——, Beda.

Sellers, T. L., non-graduate, ——, Andalusia.
Whaley, J. A., non-graduate, ——, Green Bay.

Moved into the county—William W. Grubbs, from Louisville, Barbour county, to Rose Hill; Cicero Jones, from Troy, Pike county, to Andalusia; William N. McNair, from Barbour county to Red Level.

Examinations—For the practice of medicine, William W. Grubbs, mc univ Louisville 89, cb 90, Rose Hill; William E. McNair, mc Alabama 90, cb 90, Andalusia; Wilbur E. Sentell, mc Alabama 89, cb 90, Red Level. Certificates awarded.

CRENSHAW COUNTY MEDICAL SOCIETY—Mobile, 1882.

OFFICERS.

Pr. Felix M. T. Tankersly; V. Pr. —— ——; Sec. Andrew J. Jones; Tr. Joseph R. Horn; H. O. Samuel W. May; Censors, James E. Kendrick, Joseph R. Horn, Samuel W. May, Felix M. T. Tankersly, Andrew J. Jones.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Burgamy, William Thomas, mc Atlanta 59, cb 83, Rutledge.
Coston, William Henry, mc Atlanta Southern 88, cb 89, Leon.
Horn, Joseph Robert, mc Alabama 87, cb 87, Luverne.
Jones, Andrew Jackson, mc s of m Kentucky 86, cb 86, Argus.
Kendrick, James Evans, mc Alabama 69, cb 82, Luverne.
May, Samuel William, mc phy and surg Baltimore 82, cb 83, Bullock.
Quillain, Thomas Lamar, cb 84, Honoraville.
Tankersly, Felix Marcus Tullus, mc univ Tennessee 85, cb 85, Argus.
Thrower, Stephen Leon, cb 84, Arcadia.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Davis, Henry H., Leon.
Dryer, Edward Fox, cb 84, Rutledge.
Horn, Richard Knox, mc Georgia Reform, cb 84, Patsburg.
Moxley, David Newton, cb Pike 60, New Providence.
Pryor, William Dayton, mc univ Nashville 79, cb Butler 81, Aiken.
Richardson, James P.
Shepherd, Charles Webb, Honoraville.
Stough, Daniel Bluford, mc s of m Kentucky 87, Helicon.

Moved into the county—James P. Richardson, from Montgomery county to Patsburg; Henry H. Davis, to Leon.

Moved out of the county—William Sentell, to Rose Bud, Wilcox county.

Examinations—For the practice of medicine, William Sentell, mc Alabama 89; and William H. Coston, mc Atlanta 88, cb 89.

Deaths—James P. Richardson, M. D., mc South Carolina, Patsburg, April 11, 1890, of heart disease.

CULLMAN COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

Pr. John E. Purdon; V. Pr. Marquis L. Johnson; Sec. Frank B. Burnum; Tr. Frank B. Burnum; H. O. Marquis L. Johnson; Censors, Marquis L. Johnson, John E. Purdon, Frank B. Burnum, William H. Martin.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Burnum, Francis Bynum, mc univ Vanderbilt 79, cb 86, Cullman.
Johnson, Marquis LaFayette, mc Alabama 75, cb Marshall 86, Cullman.
Kellar, Louis A., cb 89, Montevallo.
Martin, William Henry, mc Atlanta 88, cb 86, Ruby.
Purdon, John Edward, mc univ Dublin, Ireland, 63, cb DeKalb 85, Cullman.
Reid, William James, cb 89, Trimble.
Walling, John Henry, cb 89, Pinacle.
Stiefelmyer, John Ulrick.
Weiss, Aldo.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abbett, James Wesley, cb 89, Bremen.
Geiger, Marion Capers, mc Georgia Reform 86, Baileyton.
McCarty, George Washington, mc univ Vanderbilt 68, cb 86, Joppa.
McDonald, William Henry, cb 86, Joppa.
McPherson, George Washington, mc univ Vanderbilt 86, cb Elmore 86, Bremen.
Terrell, Early Watson, mc univ Vanderbilt 88, cb 88, Cullman.
Watts, George Washington, Holly Pond.

Moved into the county—George Washington McCarty, from Hulaco, Morgan county to Joppa; Early W. Terrell, from Loachapoka, Lee county, to Cullman.

Moved out of the county—Wiley W. Cook, from Cullman to Falkville, Morgan county.

Deaths--Robert Thomas Searcy, M. D., mc univ Nashville 53, cb 86, January 27, 1889.

DALE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. Mercer S. Davie; V. Pr. William Stegall; Sec. Washington L. Jones; Tr. Alexander G. McLeod; H. O. Washington L. Jones; Censors, Washington L. Jones, Erasmus B. Ard, John C. Holman, Samuel L. Weed, Mercer S. Davie.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ard, Erastus Byron, mc univ Vanderbilt 87, cb 87, Haw Ridge.
Davie, Mercer Stilwell, mc Jefferson 67, cb 87, Ozark.
Harper, Robert Franklin, mc Alabama 88, cb 88, Ozark.
Holman, John Clinton, mc Jefferson 56, cb 87, Ozark.
Jones, Washington LaFayette, mc univ Louisville 75, cb 87, Ozark.
McLeod, Alexander Gillis, mc univ Louisiana 59, cb 87, Daleville.
Reynolds, James Wilson, mc Alabama 85, cb 87, Skipperville.
Reynolds, Richard Davis, mc Alabama 80, cb 87, Skipperville.
Smisson, Henry James, mc South Carolina 60, cb 87, Newton.
Stegall, William Collinsworth, mc South Carolina 74, cb 87, Ozark.
Weed, Samuel LaFayette, mc Alabama 76, cb 87, Dean's Station.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Baxter, Hugh C., mc Atlanta 86, cb 87, Midland City.
Bottoms, James, mc Atlanta 83, cb 87, Ozark.
Dalton, Christopher Columbus, mc Georgia Reform 88, Newton.
Campbell, Terrell Taylor, mc Atlanta 83, cb 87, Echo.
Middlebrooks, E. E., non-graduate, White Pond.
Morris, Andrew Jackson, mc Atlanta Southern 87, Newton.
Stegall, Albert Sidney, mc Alabama 88, cb 87, Clopton.

Moved into the county—Robert Franklin Harper, from Mt. Andrew, Barbour county, to Ozark.

DALLAS COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

Pr. Edward B. Ward; V. Pr. Samuel G. Gay; Sec. Samuel Kirkpatrick; Tr. Thomas G. Howard; H. O. Thomas G. Howard; Censors, John P. Furniss, John A. McKinnon, Goldsby King, Frank Tipton, Mimms W. Coleman.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Adams, Benjamin Clarence, mc Alabama 72, cb 78, Adams.
Alston, Lemuel Lovatt, mc South Carolina 57, cb 78, Orrville.
Clarke, Courtney James, mc Jefferson 44, cb 78, Selma.

Cochran, Robert McRiller, mc univ Virginia 57, cb 78, Eleanor.
Coleman, Mimms William, mc univ New York 88, cb 88, Selma.
Donald, James Marion, mc Alabama 83, cb 83, Marion Junction.
Donald, Joseph Marion, mc univ Louisiana 54, cb 78, Harrell's.
Furniss, John Perkins, mc univ Louisiana 54, cb 78, Selma.
Gay, Samuel Gilbert, mc Alabama 87, cb 87, Selma.
Groves, Joseph Asbury, South Carolina 54, cb 78, Brown's.
Howard, Thomas Greenwood, mc Washington Baltimore 68, cb Autauga 84, Selma.
Jackson, Robert Dandridge, mc South Carolina 51, cb 78, Summerfield.
Kendall, William Quinton, mc phy and surg Baltimore 80, cb 80, Berlin.
King, Goldsby, mc South Carolina 80, cb 80, Selma.
Kirkpatrick, Samuel, mc univ Vanderbilt 88, cb 88, Selma.
McKinnon, John Alexander, mc univ Louisiana 68, cb 78, Selma.
Phillips, William Crawford, mc univ Louisiana 75, cb 78, Selma.
Taylor, William Henry, mc Alabama 87, cb 87, Central Mills.
Tipton, Frank, mc univ Louisiana 70, cb 78, Selma.
Tipton, William Joseph, mc Atlanta Southern 88, cb Montgomery 89, Selma.
Ward, Edward Burton, mc univ New York 82, cb Hale 82, Selma.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Boykin, James Owen, mc univ Transylvania 43, cb 78, Tilden.
Burwell, Lincoln Laconia (colored), mc Leonard, North Carolina 89, cb 89, Selma.
DuBose, Frank Dudley, mc South Carolina —, cb 78, Orrville.
Gee, James Thomas, mc Jefferson 43, cb 78, Burnsville.
Graddick, John North, Selma.
Hale, John James, mc univ Louisiana 69, cb 78, Orrville.
Hardy, William Robinson, mc South Carolina 61, cb 78, Pleasant Hill.
Hudson, Herbert Sidney, mc univ Maryland 67, cb 78, Summerfield.
Keyser, George Washington, mc univ Virginia 65, cb 78, Richmond.
Lockwood, Frank Octavius, mc South Carolina 54, cb 78, Carlowville.
McKinnon, Kenneth, mc univ Louisiana 52, cb 78, Pleasant Hill.
Mills, James Barnwell, mc Columbia, D. C. 52, cb 79, Orrville.
Mixon, William, mc univ Louisiana 48, cb 78, Plantersville.
Moore, Clement Billingslea, mc South Carolina 59, cb 78, Summerfield.
Mosely, Elijah Bucklee, mc univ Louisiana 57, cb 78, Bogue Chitto.
Stewart, William Champney, mc South Carolina 78, cb 78, Soap Stone.
Vaughan, Fred Barber, mc Alabama 71, —, Summerfield.
Weisinger, John A., mc univ Louisiana 76, cb 78, Talmage.
West, Jett Thomas, mc univ Virginia 63, cb 78, Selma.
Williamson, John Hancock, mc Jefferson 59, cb 78, Carlowville.

Moved into the county—William Joseph Tipton, from Atlanta, Ga., to Selma.

Moved out of the county—Joseph Darling, from Richmond to Mississippi; John M. Davidson, from Selma to Charlotte, N. C.; Allen L. Strong (col'd), from Selma to Fla.; Samuel H. Washington (col'd), from Selma to Birmingham; Isam Griffin Wilson, from Adams to Demopolis, Marengo county.

DeKALB COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

Pr. Thomas F. Weaver; V. Pr. Fred. P. Gale; Sec. William E. Quin; Tr. Horace P. McWhorter; H. O. Horace P. McWhorter; Censors, Wm. E. Quin, Horace P. McWhorter, Chas. L. Downer, Edward P. Nicholson, Thos. F. Weaver.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Downer, Charles Ludwick, mc Rush, Chicago 83, cb 90, Ft. Payne.
Elrod, William Adison, non-graduate, cb 85, South Hill.
Gale, Frederick Pennington, mc univ Vermont 80, cb 90, Ft. Payne.
Killian, Henry Elliott, non-graduate, cb 89, Portersville.
Isbell, James Richardson, non-graduate, cb 89, Sand Mountain.
Mains, John Franklin, mc Belleview 82, cb 90, Ft. Payne.
McWhorter, Abbott Milton, mc Atlanta 57, cb Cherokee 87, Collinsville.
McWhorter, Horace Puckett, mc univ Vanderbilt 85, cb 85, Collinsville.
Miller, James Taylor, mc univ Vanderbilt 78, cb 85, Collinsville.
Nicholson, Edward Pierson, mc univ Nashville 61, cb 85, Valley Head.
Quin, William Everett, mc Kentucky s of m 81, cb 85, Ft. Payne.
Sexton, James Alexander, mc univ Maryland 75, cb 89, Ft. Payne.
Vann, Andrew Jackson, mc Georgia 58, cb 85, Collinsville.
Weaver, Thomas Fletcher, mc univ Nashville 71, cb 85, Collinsville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allyn, Richard Phillip, mc univ Montreal Canda. cb 88, Ft. Payne.
Bailey, Alexander Henry, non-graduate, cb 85, Musgrove.
Cain, Richard Wynn, mc univ Nashville 59, cb 85, Sand Mountain.
Clapp, Walter W., mc Cleveland 87, cb 89, Ft. Payne.
Fowlkes, Frances Vaughn, mc univ Maryland 87, cb 89, Ft. Payne.
Green, Anthony Buel, mc Transylvania, 46, cb 85, Ft. Payne.
Green, Philoman Buel, mc univ Vanderbilt 76, cb 85, Ft. Payne.
Green, William Mastin, mc univ Vanderbilt 77, cb 85, Ft. Payne.
Holliday, Abner Larke, mc Georgia 59, cb 85, Sand Mountain.
Johnson, James Robert, mc Atlanta 77, cb 85, Lebanon.
McGuffey, William Charles H., non-graduate, Sulphur Springs.
Moore, William Evans, mc Atlanta 80, cb Shelby 80, Lebanon.
Patty, Robert James, Vetapathist, Ft. Payne.
Roden, William, non-graduate, cb 85, Sand Mountain.

Sibert, David Ellis, mc univ Vanderbilt 86, cb Marshall 86, Grove Oak.
Sibert, Dolphus James, non-graduate, Grove Oak.
Western, George Drake, mc univ Pennsylvania 87, cb 88, Ft. Payne.
White, Samuel Virgil, Whiton.
Winston, John Nelson, mc univ Louisville 66, cb 85, Valley Head.
Wooten, William, non-graduate, Musgrove.
Wright, William, non-graduate, Mahan.

Moved into the county—Charles Lodwick Downer, Frank Vaughn Fowlkes, Frederick Pennington Gale, John Franklin Mains, James Alexander Sexton, George Drake Weston, to Ft. Payne.

Moved out of the county—John Kemper Johnson, from Ft. Payne to parts unknown.

Examinations—For the practice of medicine, W. W. Clapp, Charles L. Downer, Fred P. Gale, John F. Mains, Jas. A. Sexton, George D. Weston. Certificates awarded.

Deaths—George Washington Lane, non-graduate, Pea Ridge.

ELMORE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. William A. Warren; V. Pr. Allen L. Warren; Sec. Oscar S. Justice; Tr. Oscar S. Justice; H. O. Oscar S. Justice; Censors, Allen L. Warren, James T. Rushin, Oscar S. Justice, William A. Huddleston, George B. Judkins.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Fitzpatrick, Phillip, mc univ Louisiana 53, cb 84, Wetumpka.
Huddleston, William Allen, mc Atlanta 80, cb 84, Wetumpka.
Judkins, George Bernard, mc Jefferson 59, cb Macon 79, Wetumpka.
Justice, Oscar Suttle, mc Alabama 85, cb 85, Central Institute.
Lett, Harris Templeton, mc univ Louisville 75, cb 84, Good Hope.
Norton, William Abner, Alabama 88, cb 88, Eclectic.
Patterson, Daniel Smith, mc South Carolina 61, cb 84, Central Institute.
Powell, Robert Emmet, cb 84, Tallassee.
Rushin, James Knox, mc univ New York 85, cb 84, Tallassee.
Rushin, James Thomas, mc univ Tennessee 83, cb 84, Tallassee.
Sewell, Neil Baker, mc univ Vanderbilt 86, cb 84, Buyck.
Warren, Allen Love, mc Jefferson 55, cb 84, Kowaliga.
Warren, William Allen, Alabama 85, cb 84, Wetumpka.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Beckett, Thomas Francis, mc univ Louisiana 56, cb 84, Titus.
Fielder, Martin Lucius, mc Ohio 56, cb 84, Eclectic.
Hall, Thomas Dixon, mc univ Pennsylvania 56, cb 84, Coosada.
Jowers, Solomon Franklin, mc Atlanta 85, cb Coosa 83, Central Institute.

Lamar, James Isaac, mc Georgia 52, cb 84, Deatsville.
Nix, James Ringold, mc South Carolina 67, cb Talladega 84, Deatsville.
Robinson, Elias Hunt, mc univ Pennsylvania 52, cb 84, Robinson Springs.

Examination—To begin the study of medicine, R. L. Huddleston; Howell W. Sewell, Elmore county. Certificates awarded.

Death—Meriwether Gaines Moore, M. D., mc univ Pennsylvania 46, cb 84, Wetumpka, of heart disease.

ESCAMBIA COUNTY MEDICAL SOCIETY—Geenville, 1885.

OFFICERS.

Pr. John E. Martin; V. Pr. James A. Wilkinson; Sec. James L. Bass; Tr. James L. Bass; H. O. Stephen C. Henderson; Censors, James A. Wilkinson, George P. Henry, John E. Martin, Stephen C. Henderson, Henry H. Malone.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bass, James Loraine, mc univ Louisville 87, cb 89, Brewton.
Douglass, William, cb 87, Mason.
Henderson, Stephen Cary, mc Alabama 87, cb 87, Brewton.
Henry, George Patrick, mc univ Nashville 70, cb 89, Wallace.
Hundley, Asbury Clark, mc univ Louisiana 65, cb 87, Milton, Fla.
Malone, Henry Holcombe, mc univ New York 60, cb 86, Brewton.
Martin, John Elijah, mc Alabama 75, cb Bullock 79, Brewton.
McAdory, William Robert, mc Alabama 79, cb 87, Pollard.
Packer, James Thomas, mc Alabama 73, cb Monroe 77, Brewton.
Wilkinson, James Anthony, mc univ Louisville 79, cb 86, Flomaton.

Moved out of the county—Ramsey P. Malay, from Pollard to Whistler, Mobile county.

ETOWAH COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. Daniel H. Baker; V. Pr. Joseph Bevans; Sec. Robert F. McConnell; Tr. William L. Funderberg; H. O. Milton R. Wright; Censors, Milton R. Wright, John P. Ralls, James H. Wood, John P. Stewart, Andrew B. Small.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baker, Daniel Harris, mc univ Nashville 82, cb 83, Gadsden.
Baskins, Walter Colquitt, mc Georgia Reform 59, cb 83, Coats' Bend.
Bevans, Joseph, cb 78, Gadsden.
Camp, Erasmus Taylor, mc Alabama 85, cb Cleburne 85, Gadsden.

Edwards, William Sterling, mc Atlanta 85, cb 85, Attalla.
Ellison, John Henry, mc univ Vanderbilt 88, cb Blount 89, Walnut Grove.
Ewing, William Thomas, mc St. Louis 49, cb 78, Gadsden.
Funderberg, William Lewis, mc Atlanta Southern 82, cb DeKalb 86, Hill.
Landers, Franklin Pierce, mc Atlanta 73, cb 84, Hoke's Bluff.
McConnell, Robert Franklin, mc Atlanta 81, cb St. Clair 81, Attalla.
Montgomery, Charles Henry, mc Washington, Md. 68, cb 78, Hoke's Bluff.
Morgan, George Washington, mc univ Nashville 89, cb DeKalb 89, Keener.
Ralls, John Perkins, mc Georgia 44, cb 78, Gadsden.
Small, Andrew Benjamin, mc Memphis 88, cb 88, Attalla.
Smith, Samuel Parish, mc univ Louisville 88, cb DeKalb 88, Keener.
Stewart, John Pope, mc Alabama 86, cb 86, Attalla.
Teague, Francis Bowden, mc univ Tennessee 80, cb 80, Oak Hill.
Wood, James William, mc univ Vanderbilt 81, cb 81, Attalla.
Wright, Milton Roil, mc Alabama 73, cb 78, Gadsden.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Anderson, Richard B., mc Georgia Southern 88, cb 88, Walnut Grove.
Bevans, Edward Gaudy, mc Alabama 78, cb 78, Gadsden.
Bynum, George Washington, mc univ Tennessee 86, cb Blount 86, Walnut Grove.
Coggan, William Thomas, Keener.
Dowdy, Edgar Lee, mc univ Vanderbilt 76, cb 78, Keener.
Dozier, Marshall Elias, mc Atlanta 61, cb 78, Attalla.
Frazier, Frank B., mc univ Tennessee 80, cb 86, Oak Hill.
Jack, Walter Early, mc univ Vanderbilt 89, cb 89, Rock Springs.
Johnson, James K., mc univ Vanderbilt 84, cb 86, Seaborn.
Lester, James Henry, mc Atlanta 58, Attalla.
Liddell, John Benson, mc Atlanta 82, cb 82, Gadsden.
Morgan, George Washington, mc univ Vanderbilt 89, cb 89, Keener.
Robertson, William F., mc Atlanta 84, cb 89, Crudup.
Russell, Ralph Morgan, mc Bellevue 88, cb 89, Gadsden.
Sampler, Robert Johnson, cb 84, Gadsden.
Slack, John Calhoun, mc univ Vanderbilt 73, cb —, Gadsden.

Moved into the county—Robert B. Anderson to Walnut Grove; William Sterling Edwards, from Bingham, Elmore county, to Attalla; Walter Early Jack, to Rock Springs; George Washington Morgan to Keener; William F. Robertson, from Tallapoosa, Ga., to Attalla.

Moved out of the county—Frank Appling Liddell, from Aurora to Boaz, Marshall county.

Examinations—For the practice of medicine, George W. Morgan, Keener; William F. Robertson, Crudup. Certificates awarded,

Death—William Henry Garlington, M. D., mc South Carolina 56, cb 78, Walnut Grove, of Bright's disease.

FAYETTE COUNTY MEDICAL SOCIETY—Selma, 1884.

OFFICERS.

Pr. Alexander W. Agnew; V. Pr. —— ——; Sec. Thomas C. Morton; Tr. John H. Duncan; H. O. Thomas B. Woods; Censors, George J. Collins, Alex. W. Agnew, Thomas B. Woods, Alex. K. Newton, Thomas C. Morton.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Agnew, Alexander Washington, mc univ Transylvania 44, cb 84, Fayette C. H.
Collins, Alonzo Kennedy, mc univ Louisville 90, cb 90, Pilgrim.
Collins, George Jackson, mc Alabama 74, cb 84, Pilgrim.
Duncan, John Harvey, mc univ Vanderbilt 86, cb Pickens 86, Fayette C. H.
Hollis, Jonathan Shelton, mc Alabama 84, cb 84, Brockton.
Jones, William Wilber, cb Tuscaloosa (old law) 68, cb 84, Newtonville.
Lane, Jesse Washington, mc univ Louisville 86, cb 86, New River.
Milton, Thomas M., non-graduate, Berry Station.
Morton, Thomas Clark, mc Lamar (old law) 71, cb 84, Fayette C. H.
Newton, Alexander Kilby, mc Georgia Southern 83, cb 84, Berry Station.
Savage, Victor, mc univ Vanderbilt 88, cb 84, Wayside.
Seay, Mark Rollins, —— ——, cb Lamar 83, Berry Station.
Smith, John Gardner, mc Alabama 89, cb 90, Bankston.
Woods, Thomas Bailey, mc univ Vanderbilt 88, cb 89, Wayside.
Wright, Alexander W., mc univ New York 88, cb 86, Cave Spring.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Linn, Jesse Washington, mc Georgia 58, cb 88, Spencer.

Moved into the county—John Gardner Smith to Bankston.

Moved out of the county—Lucius Thomas Hocut, from Davis Creek to Birmingham; Benjamin Harrison Smothers, from Bankston to Arkansas.

Examinations—For the practice of medicine: Alonzo Kennedy Collins, mc univ Louisville 90, Pilgrim; John Gardner Smith, mc Alabama 89, Bankston. Certificates awarded.

FRANKLIN COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. Charles P. Banks; V. Pr. Oscar Sargent; Sec. Louis W. Desprez; Tr. Louis W. Desprez; H. O. William W. Cleere; Censors, Charles P. Banks, John K. Clarke, Jr., Oscar Sargent, William W. Cleere, Louis W. Desprez.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Banks, Charles Peters, mc univ Nashville 55, cb 88, Newberg.
Barnes, Thomas Benton, mc Bellevue 86, cb 87, Burleston.
Clarke, John King, Sr., mc univ Nashville 56, cb 88, Russellville.
Clarke, John King, Jr., mc univ Vanderbilt 81, cb 88, Newberg.
Clarke, John M., cb 88, Russellville.
Cleere, William Watkins, mc univ Vanderbilt 82, cb 88, Bel Green.
Desprez, Louis Willoughby, mc Alabama 77, cb 78, Russellville.
Gill, Charles, cb 88, Newberg.
Harris, John Calhoun, cb 88, Russellville.
Hughes, Charles, cb 88, Pleasant Site.
Pike, James H., cb 88, Pleasant Site.
Sargent, Oscar, mc univ Vanderbilt 81, cb 81, Isbell.
White, Robert Josiah, cb 88, Burleston.

PAYSICIANS NOT MEMBERS OF THE SOCIETY.

Sevier, Benjamin B., cb 87, Bel Green.
Sevier, Daniel P., cb 87, Russellville.

The report here given is that of last year, and was referred to the board of censors for investigation.

GENEVA COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

Pr. Millard F. Fleming; V. Pr. Benjamin W. Finney; Sec. Sidney F. Latimer; Tr. Sidney F. Latimer; H. O. —— ——; Censors, Millard F. Fleming, Charles W. Williams, Benjamin W. Finney.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ard, James Henry, cb 88, Geneva.
Bolling, William, cb 88, Martha.
Finney, Benjamin W., mc univ New York 54, cb 88, Coffee Springs.
Fleming, Millard F., cb 88, Sanders.
Henderson, John G., cb 88, Limestone, Fla.
Hilliard, Charles Wesley, mc Georgia Reform 60, cb 88, Geneva.
Howell, David D., mc South Carolina 53, cb 88, Geneva.

Latimer, Sidney F., ———, cb 88, Geneva.
Mathews, James H., cb 88, Dundee.
Powell, Samuel B., cb 88, Dundee.
Sheets, Joseph B., cb 88, Dundee.
Treadwell, Henry P., cb 88, Geneva.
Ward, Thomas Jefferson, cb 88, Watford.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Clements, John, cb Greene —, Elton.

The report here given is that of last year, and appears with its usual imperfections. Referred to the board of censors for investigation.

GREENE COUNTY MEDICAL SOCIETY—Selma, 1878.

OFFICERS.

Pr. John J. A. Smith; V. Pr. Dabney O. McGehee; Sec. James P. Barclay; Tr. James P. Barclay; H. O. Thomas W. Pierce; Censors, Augustus M. Duncan, Dabney O. McGehee, Samuel J. Murphy, Robert T. Byrd, James P. Barclay.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Asher, David Crockett, mc St. Louis, Mo. 60, cb Tuscaloosa 81, Clinton.
Barclay, James Paxton, mc univ New York 71, cb 79, Eutaw.
Byrd, Robert Taylor, mc univ New York 69, cb 80, Boligee.
Duncan, Augustus Meek, mc Alabama 74, cb 79, West Greene.
McGehee, Dabney Oswell, mc Alabama 72, cb 79, Knoxville.
Murphy, Samuel Silenus, mc Alabama 81, cb 84, Pleasant Ridge.
Pierce, Thomas William, mc univ Virginia 57, cb 79, Knoxville.
Smith, Armand Pfister, mc Kentucky 75, cb 79, Knoxville.
Smith, John James Alexander, mc Atlanta 58, cb 79, Union.
Webb, Henry Young, mc Jefferson 46, cb 79, Eutaw.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bird, Alexander Hamilton, mc univ New York 69, cb 80, Burton's Hill.
Hatton, William Reuben, mc univ Tulane, New Orleans 89, cb 89, Boligee.
Kimbrough, William Ellis, mc univ Louisville 83, cb Washington 87, Forkland.
LaGree, Henry, mc univ New York 86, cb 87, Forkland.
Minor, John Launcelotte, mc Alabama 83, cb 83, Mt. Hebron.
Mobley, William Americus, mc Alabama 75, cb 79, West Greene.
Morgan, Isaac DuBose, mc univ Pennsylvania 58, cb 79, Eutaw.
Parham, George Washington, non-graduate, Knoxville.
Pearson, Edward Pallen, mc univ Louisville 73, Forkland.
Purnell, James Knox, cb Pickens 88, Clinton.

Snoddy, Samuel, mc univ Transylvania 31, cb 79, Mantua.
Snoddy, Virgil, mc Alabama 73, cb 79, Mantua.
White, John McElroy, mc univ Vanderbilt 79, cb 82, Pleasant Ridge.

Examinations—For the practice of medicine: William Reuben Hatton, mc univ Tulane, N. O. 89, cb 89, Boligee. Certificate awarded.

HALE COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

Pr. Francis M. Peterson; V. Pr. Jacob Huggins; Sec. Richard Inge; Tr. Richard Inge; H. O. Jacob Huggins; Censors, Francis M. Peterson, Elisha Young, Thomas R. Ward, Jacob Huggins, Richard Inge.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Avery, William Cushman, mc univ Pennsylvania 57, cb 78, Gallion.
Borden, James Pennington, mc univ Southern 73, cb 78, Greensboro.
Dugger, Reuben Henry, mc univ Pennsylvania 58, cb 78, Gallion.
Gewin, William Christopher, mc univ Louisiana 78, cb 78, Akron.
Huggins, Jacob, mc univ Pennsylvania 60, cb 78, Newberne.
Inge, Richard, mc univ New York 71, cb 78, Greensboro.
Owens, Richard Harrison, mc univ Nashville 80, cb 81, Havana.
Peterson, Francis Marion, mc univ New York 68, cb 78, Greensboro.
Pickett, Joseph Martin, mc Alabama 74, cb 78, Cedarville.
Tidmore, James Adams, mc Kansas City 84, cb 89, Havana.
Ward, Thomas Robert, mc South Carolina 53, cb 78, Greensboro.
Young, Elisha, mc Jefferson 59, cb 78, Greensboro.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Anderson, Thomas Jefferson, mc univ Pennsylvania 52, cb 78, Evansville.
Browder, Joseph D., mc Jefferson 57, cb 78, Gallion.
Browder, William Monroe, mc univ New York 88, cb 88, Gallion.
Spencer, George M., cb Tuscaloosa 78, Brush Creek.
Turk, William Luther, mc univ Nashville 82, cb Sumter 83, Gallion.
Wedgeworth, William McNeil, mc phy and surg Baltimore 84, cb 85, Newberne.
Wilburn, John Calhoun, mc Jefferson 78, cb 78, Carthage.
Wilson, S. B., non-graduate, cb Griffin —, Tuscaloosa.

Moved out of the county—Peter Hairson Dillard, from Sawyerville to Centreville, Bibb county.

Examinations—For the practice of medicine: Rufus Jackson Griffin, mc Alabama 90, cb 90, Havana. Certificate awarded.

HENRY COUNTY MEDICAL SOCIETY—Birmingham, 1883.

OFFICERS.

Pr. Fleming I. Moody; V. Pr. John E. Price; Sec. Oscar Dowling; Tr. Charles F. Sporeman; H. O. John I. Darby; Censors, John I. Darby, Fleming I. Moody, William J. Lee, George A. Hammond, James W. Payne.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allred, Idus Park, mc Georgia Southern 84, cb Pike 84, Dothen.
Brooks, George Washington, mc Atlanta 58, cb 89, Dothen.
Crawford, John Peter, mc univ Louisville 51, cb 83, Columbia.
Darby, John Isaac, mc Louisville 80, cb Barbour 82, Columbia.
Dowling, Oscar, mc univ Vanderbilt 88, cb Dale 88, Columbia.
Hammond, George Abner, mc Baltimore 84, cb 84, Dothen.
Hardwick, Wlilliam Preston, mc Alabama 86, cb 87, Headland.
Lee, William Joseph, mc univ Louisville 60, cb 83, Abbeville.
Minter, John Frederick, mc Georgia 73, cb 83, Columbia.
Moody, Fleming Isaac, mc phy and surg Baltimore 76, cb 83, Dothen.
Payne, James Walton, mc Alabama 86, cb 87, Dothen.
Price, John Edmund, mc univ Nashville 61, cb 87, Headland.
Sporeman, Charles Frederick, mc Alabama 86, cb 87, Headland.
Stovall, John Henry, mc Atlanta 59, cb 89, Columbia.
Vaughn, David Horatius, mc Atlanta 88, cb 89, Gordon.
Walden, William Preston, mc Alabama 82, cb Barbour 82, Headland.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Blackledge, John Richard, mc Alabama 89, cb —, Abbeville.
Flowers, Robert Milton, mc Louisville 86, cb —, Lawrenceville.
Fowler, John Linsley, mc South Carolina 51, cb 83, Shorterville.
Fowler, John Thomas, mc South Carolina 83, cb 84, Shorterville.
Granger, John Wesley, mc Georgia Reform 59, cb 85, Granger.
Howell, James Richard George, mc Atlanta 90, cb Dale 87, Dothen.
Lewis, James Langston, mc Atlanta 84, cb 84, Bush.
Long, James Benjamin, mc Louisville 81, cb 83, Abbeville.
Powell, Lamb B., (one course), cb —, Grafton.
Williams, William Henry, (two courses), cb —, Hardwicksburg.

Moved into the county—Idus Park Allred, from DeFuniac Springs, Fla., to Dothen.

Moved out of the county—Amon Hill, from Otho to Atlanta.

Examinations--For the practice of medicine: George Washington Brooks, mc Atlanta 58, cb 89, Dothen; John Henry Stovall, mc Atlanta 59, cb 89, Columbia; David Horatius Vaughn, mc Alabama 88, cb 89, Gordon. Certificates awarded.

JACKSON COUNTY MEDICAL SOCIETY—Mobile, 1882.

OFFICERS.

Pr. George T. Hayes; V. Pr. Samuel M. Dicus; Sec. Andrew Boyd; Tr. William C. Maples; H. O. Samuel R. Tarrant; Censors, William C. Maples, Andrew Boyd, James R. Tarrant, George T. Hayes, George W. Foster.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Boyd, Andrew, mc phy and surg Baltimore 88, cb 88, Scottsboro.
Boyd, James Harvey, mc univ Nashville 60, cb 82, Larkinsville.
Brewer, Joseph Mitchell, mc univ Vanderbilt 82, cb 82, Trenton.
Dicus, James Madison, mc Alabama 86, cb 86, Scottsboro.
Foster, George Whitfield, mc univ Nashville 82, cb 82, Stevenson.
Hayes, George Thomas, mc Alabama 87, cb DeKalb 87, Woodville.
Horton, John Jackson, mc univ Vanderbilt 81, cb 84, Stevenson.
Maples, William Caswell, mc univ Tennessee 81, cb Madison 82, Bellefonte.
McAfee, Green Prior, cb Shelby 82, Line Rock.
Rorex, James Polk, mc Alabama 75, cb 82, Scottsboro.
Tarrant, James Richard, mc Alabama 87, cb 87, Fackler.
Womack, Wiley Coker, cb 84, Scottsboro.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adkins, Charles William, mc univ Louisiana 68, cb 84, Langston.
Allen, James Beckerell, mc univ Tennessee 87, cb 87, Stevenson.
Allen, William Henry, one course, mc univ Louisville 67, cb 84, Langston.
Clarke, John Fletcher, cb 84, Garth.
Derrick, LaFayette, cb 84, Woodville.
Gattis, Henry Franklin, cb 84, Woodville.
Graham, Michael, cb 84, Stevenson.
Grant, Felix Robertson, cb 84, Larkins Fork.
Gunter, James Henry, Bridgeport.
Haddon, William D., mc univ Vanderbilt 82, Narrows.
Harralson, Jefferson B., mc univ Vanderbilt 88, cb Marshall —, Langston.
Hudson, James Madison, Tupelo.
James, William, mc univ Vanderbilt 82, Widows.
Knowlton, John Wesley, mc univ Vanderbilt 83, cb 84, Paint Rock.
Lee, Elisha Lightfoot, mc univ Vanderbilt 73, cb 84, Bridgeport.
Mason, William, mc univ Transylvania 46, cb 84, Fabius.
McCord, John Harvey, cb 82, Scottsboro.
Parks, James Weaver, cb 84, Scottsboro.
Robertson, James Osgood, cb 84, Garth.

Smith, Barton Brown, mc univ Nashville 67, cb 82, Larkinsville.
Smith, Eugene R., mc univ Vanderbilt 89, cb 85, Press.
Smith, William Barton, cb 86, Line Rock.
Spiller, William Kingston, mc univ Louisville 74, cb 84, Bridgeport.
Wright, William Ira, non-graduate, Callahan.

Moved out of the county—Alexander N. Blakemore, from Dodsonville to Walnut Grove, Etowah county; David B. McCord, from Scottsboro to Teuton, Georgia.

Examinations—For the practice of medicine: Lewis A. Templeton mc univ Vanderbilt 89. Certificate refused.

JEFFERSON COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. William H. Johnston; V. Pr. Ruffin Coleman; Sec. George S. Brown; Tr. Wm. D. Cooper; H. O. Henry N. Rosser; Censors, John W. Sears, Edward H. Sholl, Thad. L. Robertson, W. E. B. Davis, B. Leon Wyman.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Abernethy, Jones Cadwalader, mc univ Louisiana 59, cb Marengo 78, Birmingham.
Baird, William James, mc univ Maryland 82, cb 88, Birmingham.
Barclay, John Wyeth, Jefferson 69, cb Madison 78, Birmingham.
Burgamy, William Purifoy, mc Jefferson 55, cb 80, Birmingham.
Berry, Robert S., mc univ Virginia 82, cb 85, Birmingham.
Brown, George Summers, mc Jefferson 85, cb 87, Birmingham.
Caffee, Samuel Richmond, mc Miami, Ohio 81, cb Tuscaloosa 81, Birmingham.
Carson, Shelby Chadwick, mc univ Tulane, La. 74, cb Greene 79, Bessemer.
Chapman, John Thomas, mc Alabama 86, cb Marengo 86, Bessemer.
Cochrane, Hardin Perkins, mc univ New York 74, cb Tuscaloosa 82, Birmingham.
Coleman, Ruffin, mc univ Nashville 69, cb Limestone 78, Birmingham.
Cooper, William Dudley, mc Jefferson 69, cb Lee 82, Birmingham.
Copeland, Benjamin Grigsby, mc Jefferson 83, cb Limestone 83, Birmingham.
Coulbourn, James Thomas, mc univ Maryland 86, State Board 86, Birmingham.
Curry, John Barton, mc Alabama 87, cb Pickens 87, Bessemer.
Davidson, James, mc Alabama 87, cb 87, Birmingham.
Davis, John Daniel Sinkler, mc Georgia 79, cb St. Clair 79, Birmingham.
Davis, William Elias Brownlee, mc Baltimore 84, cb 84, Birmingham.

Douglass, Albert Gallatin, mc univ Vanderbilt 81, cb 81, Birmingham.
Dozier, John Calhoun, mc univ Nashville 58, cb Perry 79, Birmingham.
Drennen, Charles, mc Alabama 72, cb Blount 78, Birmingham.
Due, Malvin Nicholson, mc phy and surg New York 89, cb Montgomery 89, Birmingham.
Finch, James Henry, col phy and surg Baltimore 86, cb 87, East Lake.
Forster, William Condie, mc univ Louisiana 82, cb Choctaw 84, Birmingham.
Gamble, William Wesley, mc Kentucky s of m 87, cb 87, East Lake.
Gibson, Jefferson Davis, mc Alabama 87, cb Tuscaloosa 87, Birmingham.
Gillespey, John Sharpe, mc Miami, Ohio 83, cb 83, Birmingham.
Griggs, John Gardner, mc univ Pennsylvania 63, cb Macon 86, Birmingham.
Hendley, Albert Thomas, mc univ New York 69, cb 84, Birmingham.
Jernigan, Charles Henry, mc Jefferson 54, mc Bullock 80, Birmingham.
Johnston, William Henry, mc univ New York 67, cb Dallas 78, Birmingham.
Jones, Capers Capehart, mc univ Pennsylvania 70, cb Wilcox 79, East Lake.
Kendrick, Joel Beder, mc Alabama 82, cb Butler 82, Birmingham.
Killough, James Monroe, mc Kentucky s of m 87, cb 87, Huffman.
Ledbetter, Samuel Leonidas, mc univ Louisville 76, cb 78, Birmingham.
Luckie, James Buchner, mc Pennsylvania 55, cb 77, Birmingham.
Martin, James Phillip, mc Bellevue 83, cb Barbour 84, Birmingham.
McCarty, James Henry, mc Atlanta 80, cb 83, Birmingham.
Morris, Edward Watts, mc univ Virginia 84, cb 87, Birmingham.
Page, John Randolph, mc univ Virginia 50, cb 88, Birmingham.
Parke, Thomas Duke, mc univ New York 79, cb Dallas 84, Birmingham.
Perry, Samuel, mc South Carolina 54, cb Perry 78, Birmingham.
Pinkston, James Madison, mc phy and surg Baltimore 78, cb Marengo 80, Birmingham.
Prince, Francis Marion, mc Jefferson 49, cb 78, Bessemer.
Ransom, William Walter, mc univ Vanderbilt 88, cb 88, Birmingham.
Riggs, Edward Powell, mc phy and surg Baltimore 81, mc Dallas 78, Birmingham.
Robertson, Thaddeus Lindsay, mc Jefferson 61, mc Calhoun 87, Birmingham.
Rosser, Henry Nollner, mc Atlanta 69, cb Shelby 69, Birmingham.
Sears, John William, mc univ Pennsylvania 50, cb 78, Birmingham.
Sexton, Charles Richard, mc univ Louisiana 75, cb Tuscaloosa 78, Birmingham.
Sholl, Edward Henry, mc univ Pennsylvania 56, cb Sumter 78, Birmingham.
Simms, Benjamin Britt, mc Jefferson 85, cb Coosa 85, Birmingham.

Webb, Robert Dickens, mc univ Virginia 55, cb Sumter 78, Birmingham.
Whaley, Lewis, mc Atlanta 73, cb Blount 79, Birmingham.
Whelan, Charles, mc univ Louisiana 66, cb 78, Birmingham.
Wilson, Cunningham, mc univ Pennsylvania 84, cb 84, Birmingham.
Woodson, Lewis Griffin, mc univ Maryland 86, cb 88, Birmingham.
Wyman, Benjamin Leon, mc univ Virginia 78, mc univ New York 79, Tuscaloosa 82, Birmingham.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abercrombie, John Patterson, mc Alabama 80, cb 82, Cedar Grove.
Acton, Samuel Watson, mc Alabama 60, cb Marengo 78, Trussville.
Alexander, Howard Augustus, mc Kentucky s of m 75, cb Marengo 78, Birmingham.
Ball, John, cb Calhoun 87, Avondale.
Ballard, Alexander Nathaniel, homeopathist, Birmingham.
Bevans, James Madison, mc univ Louisville 72, cb Madison 72, Warrior.
Blakely, Ernest Maltravers, mc Meharry 87, cb Montgomery 87, Birmingham.
Brewster, Andrew Jackson, mc Alabama 80, cb 87, Birmingham.
Brown, George Washington, mc Atlanta 77, cb 78, Pratt Mines.
Brown, Thomas Jefferson, mc univ Vanderbilt 85, cb 86, Pratt Mines.
Brown, James Andrew, mc univ Virginia 87, cb Conecuh 87, Ensley.
Carter, James Watkins, cb Limestone 78, Bessemer.
Clayton, Benjamin Lawrence, mc univ Vanderbilt 82, cb St. Clair 82, Ayres.
Cook, William Henry, old law 57, cb Morgan 80, Birmingham.
Cotton, Robert, mc univ Louisiana 67, cb 86, Ensley.
Cross, Samuel Mardis, mc Georgia 60, cb 78, Woodlawn.
Cross, Thomas, Warrior.
Crow, Phillip Patterson, mc univ Nashville 77, cb St. Clair 77, Coalburg.
Crump, Henry Green, cb St. Clair 87, Birmingham.
Cunningham, Russell McWhorter, mc Baltimore 79, cb 83, Pratt Mines.
Downey, John Wesley, mc Jefferson 57, cb 87, Avondale.
Drennen, Charles Travis, mc Rush 85, cb Cullman 85, Birmingham.
Dryer, Thomas Edmund, mc Atlanta 85, cb Macon 86, Birmingham.
Edwards, Robert Smith, mc Atlanta 71, cb 78, Trussville.
Ellis, Gideon Wesley, cb 76, Morris.
Ellsberry, John Payne, mc univ Virginia 60, cb Montgomery 84, Redding.
Fabre, Jules F., mc homeophathic, Cleveland 84, cb 85, Birmingham.
Fielder, Francis L., Birmingham.
Gamble, John Wesley, cb Jefferson (old law), Huffman.
Green, Robert Smith, mc Alabama 60, cb 87, New Castle.
Griffin, William, mc phy and surg Baltimore 87, cb 87, Pratt Mines.

Hale, William Lewis, mc Alabama 78, cb 88, Bessemer.
Hawkins, Richard Nathaniel, mc Miami, Ohio 69, cb Shelby 80, Birmingham.
Heddleston, John Lawrence, mc South Carolina 55, cb 88, Gate City.
Henry, John Franklin, mc Baltimore 86, cb 87, Pratt Mines.
Hill, Charles Lowry, mc univ Tennessee 88, cb 89, Elliott.
Howell, John Thomas, mc St. Louis 81, cb 87, Birmingham.
Jenkins, Lewis Allen, mc Alabama 89, cb Wilcox 89, Brookside.
Jolly, Arnold, mc Alabama 85, cb Marengo 85, Birmingham.
Jones, R. Augustus, Pratt Mines.
Jones, Edward Jackson, Henry Ellen.
Jones, John Thomas, mc univ Tulane 85, cb 88, Johns.
Klebs, Thomas Alexander, charity hospital N. O., cb 87, Birmingham.
Lacy, Edward Parish, mc univ Vanderbilt 83, cb Shelby 83, Dolomite.
Leichtschein, Louis, mc Bellevue 84, cb Tuscaloosa 89, Birmingham.
Lewis, Francis Porcher, mc South Carolina 76, cb 76, Coalburg.
McPherson, James, mc Meharry 89, cb 89, Birmingham.
Miller, James Melville, mc Alabama 84, Walker 84, Blossburg.
Mobley, Richard V., mc Alabama 89, cb Clarke 89, Birmingham.
Moore, Henry, Warrior.
Oates, David Dudley, mc univ Pennsylvania 60, cb 79, Leeds.
Owen, William, cb old law 57, cb Tuscaloosa 78, Jonesboro.
Paine, John, mc Jefferson 86, cb Shelby 86, Hillman.
Posey, William Felix, mc Alabama 51, cb 78, Mt. Pinson.
Pouncy, John Brown, mc univ New York 51, cb Bullock 81, Birmingham.
Ragsdale, Edward Socrates, mc Georgia 78, cb Perry 78, McCalla.
Robbins, Jesse Albert, mc South Carolina 86, cb 87, Brookside.
Robinson, Elisha Milton, mc univ Louisiana 85, cb Blount 86, Bessemer.
Robinson, Jasper Bennett, mc univ Vanderbilt 69, cb St. Clair 78, Woodlawn.
Robinson, Thomas Franklin, mc univ Vanderbilt 85, cb 86, Woodlawn.
Roberts, Martin, cb 79, Warrior.
Rogers, McCarty, mc Alabama 89, cb Conecuh 89, New Castle.
Salade, Louis Audenried, mc Pennsylvania 88, cb —, Thomas.
Scott, James Nathaniel, cb 86, Birmingham.
Shepherd, Richard B., Bessemer.
Shoemaker, Wooten Ney, mc Columbus, Ohio 78, cb 78, Birmingham.
Spencer, Lucian Oliver, mc Miami, Ohio 85, cb 86, Jonesboro.
Statum, Job, mc Atlanta 88, cb 88, Blossburg.
Steves, William Hardy, mc phy and surg Baltimore 79, cb 86, Birmingham.
Ward, Jesse, mc Atlanta 88, cb 88, Blossburg.
Wheeler, Samuel Harvey, mc Atlanta 73, cb Blount 78, Birmingham.
Whissenhant, Lewis Daniel, Morris.

Wood, Henry, Woodward Junction.
Woolerton, Samuel Harvey, mc univ Pennsylvania 86, cb 86, Oxmoor.

Moved into the county—Malcom Nicholas Due; Arnold Jolly, from Faunsdale, Marengo county; Joel Beder Kendrick, from Greenville, Butler county; Louis Leichtschein, from New York; James McPherson; John M. Miller, from Cordova, Walker county; Richard V. Mobley and Benjamin B. Simms, to Birmingham.

Moved out of the county—James M. Hayes, from Birmingham to Florence; Bolivar T. Jones, from Birmingham to Macon, Miss.; Walter A. Flecker, from Morris Mines to Kentucky; L. C. Ruter, to Florida; John B. Staggs, from Elliott to Florida.

Examinations—For the practice of medicine, Charles L. Hill, mc univ Tennessee 88, Elliott; James McPherson, L. C. Ruter, W. H. Steves, Frank Vaughn, John Wiggins, Robert Woodson. Certificates awarded. John D. Crum, certificate refused.

Death—William Locke Chew, M. D., mc univ Louisiana 86, Dec. 4, 89, of gunshot wound; Henry S. Duncan, M. D., September, 89.

LAMAR COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. William L. Morton; V. Pr. William F. Elliott; Sec. Martin W. Morton; Tr. Martin W. Morton; H. O. Robert J. Redden; Censors, William L. Morton, Martin W. Morton, Robert J. Redden, William F. Elliott.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Box, Daniel William, mc Alabama 85, cb 85, Malloy.
Burns, George Crothers, cb 78, Vernon.
Elliott, William Farris, one course Louisville 57, cb 77, Beaverton.
Hollis, Daniel Dixie, mc phy and surg Baltimore 84, cb 84, Sulligent.
Morton, Martin Watson, mc Cincinnati 73, cb 77, Vernon.
Morton, William Locke, mc univ Louisiana 74, cb 77, Vernon.
Redden, Robert James, mc univ Baltimore 73, cb 77, Sulligent.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Armstrong, William, cb 80, Detroit.
Barksdale, James Ira, mc univ Nashville 72, cb Tuscaloosa 86, Hudson.
Blakeney, Louis Columbus, mc Alabama 74, cb Tuscaloosa 77, Millport.
Blalock, Newberne W., cb Tuscaloosa 77, Crews.
Collins, James P., cb Fayette 84, Kingsville.
Collins, George Jackson, mc Alabama 74, cb 84, Kingsville.
Collins, Scott, cb 77, Detroit.
Guin, Joel B., mc Cincinnati 88, cb Perry 86, Detroit.
Kennedy, John Oscar, mc Alabama 82, cb 82, Kennedy.

Kennedy, William Henderson, mc univ Nashville 51, cb 77, Kennedy.
Seay, Thomas Jefferson, cb 77, Fernbank.
Vaughn, George Washington, cb Perry 88, Jewell.

Moved into the county—Newton W. Blalock, from Tuscaloosa county to Crews; James P. Collins, from Pilgrim, Fayette county, to Kingsville.

Moved out of the county—William James Collins, from Kingsville to Guin, Marion county; John Gardner Smith, from Caanan to Bankston, Fayette county.

Examinations—For the practice of medicine; John Gardner Smith, mc Alabama 89, cb 89. Certificate awarded.

LAUDERDALE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. James W. Stewart; V. Pr. Emmet L. Jones; Sec. Percy I. Price; Tr. Percy I. Price; H. O. Charles M. Watson; Censors, William M. Price, James W. Stewart, Hugh L. Ray, Joseph A. Pate, Henry A. Moody.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Arnold, Leonard Waring, mc univ Nashville 82, cb 87, Florence.
Douglass, James Albert, mc univ Nashville 68, cb 88, Centre Star.
Duckett, Levi Fowler, mc Atlanta 56, cb 87, Florence.
Haraway, William Epps, mc univ Nashville 56, cb 87, Florence.
Jones, Emmet Lee, mc Alabama 86, cb 87, Florence.
Kennedy, Hiram Richard, mc univ Louisville 79, cb 87, Green Hill.
Moody, Henry Altamont, mc univ Louisville 66, cb 87, Florence.
Pate, Jesse Americus, mc univ Louisville 75, cb 87, Rogersville.
Petty, Robert Augustus, mc Alabama 76, cb Madison 78, Florence.
Powers, Alexander Hamilton, mc univ Louisville 71, cb 87, Waterloo.
Price, Percy Isaac, mc univ Vanderbilt 86, cb 87, Florence.
Price, William Mason, mc univ Nashville 65, cb 87, Florence.
Ray, Hugh Leonidas, mc univ Nashville 71, cb 87, Oakland.
Watson, Charles McAlpine, mc univ Louisiana 81, cb Greene 82, Florence.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Belue, John Calhoun, cb 90, Rogersville.
Bramlett, William M., mc univ Louisville —, Florence.
Hannum, Anthony Butler, mc univ Nashville 60, cb 87, Pruitton.
Harris, William C., Lexington.
Henderson, Alexander Holmes, mc univ Nashville 76, cb 87, Bailey Springs.
Johnson, Stephen, mc univ Louisville 57, cb 87, Raw Hide.

Jones, John, Lexington.
Kernachan, William Jones, mc univ Vanderbilt 78, cb 88, Florence.
Morgan, James Thomas, mc univ Nashville 61, cb 87, Florence.
Newton, George J., Rogersville.
Powell, William Washington, mc univ Michigan 55, cb 88, Pruitton.
Richardson, Wiley William, mc univ Louisville 88, cb 89, Centre Star.
Stewart, Edmund Monroe, mc univ New York and Vanderbilt 68, cb 87, Oakland.
Sullivan, Oliver Brown, mc univ Louisville 47, cb 87, Waterloo.
Walker, John Franklin, Florence.
Welch, Benjamin Taylor, mc univ Vanderbilt 89, cb —, Rogersville.
Williams, George, Covington.

Moved into the county—William U. Bramlett, from Mississippi to Florence; Robert Augustus Petty, from Hayes' Store, Madison county, to Florence.

LAWRENCE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. Edward C. Ashford; V. Pr. Robert M. Simpson; Sec. William J. McMahon; Tr. William J. McMahon; H. O. William J. McMahon; Censors, Henry B. Burkett, John G. Frierson, John R. McDonald, Edgar Rand, Robert M. Simpson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ashford, Edward Clinton, mc univ Louisiana 57, cb 78, Courtland.
Binford, Littleberry Herndon, mc Jefferson 51, cb 78, Courtland.
Burkett, Henry Bascomb, mc phy and surg Baltimore 78, cb 78, Hillsboro.
Etheridge, Benjamin Franklin, mc Memphis 86, cb 86, Avoca.
Hodges, John Pruitt, mc univ Nashville 72, cb 72, Oakville.
Houston, Leonidas Walton, mc univ Nashville 77, cb 72, Town Creek.
Jones, Thomas Nathaniel, mc univ Louisville 78, cb 78, Courtland.
Martin, John Rufus, mc univ Louisville 69, cb 78, Hatton.
Masterson, Byron O., mc univ Indiana 59, cb 78, Avoca.
Masterson, John Thomas, mc phy and surg Philadelphia 72, cb 78, Moulton.
McDonald, John Robert, mc univ Nashville 67, cb Limestone 78, Town Creek.
McMahon, William Jack, mc Long Island N. Y. 60, s of m New Orleans 61, cb 78, Courtland.
Rand, Edgar, mc Alabama 78, cb 78, Leighton.
Simms, Edgar Thomas, mc univ Pennsylvania 69, cb 78, Hillsboro.
Simpson, Robert Miles, mc univ Vanderbilt 76, cb 89, Moulton.
Stanley, William Henry, mc univ Vanderbilt 87, cb 87, Courtland.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Biddle, Edward J., cb Lowndes 78, Mt. Hope.
Carter, Parkerson Patrick, cb Lowdnes 79, Brick.
Edwards, John Wilson, mc univ Louisville 69, cb 78, Town Creek.
Fennell, Isham Watkins, mc univ Nashville 67, cb Madison 78, Courtland.
Fish, William Fletcher, mc univ New York 56, cb Limestone 88, Landersville.
Howell, John Rufus, mc Memphis 88, cb 88, Hatton.
Jones, Thomas Crittenden, mc univ Louisville 76, cb 78, Mt. Hope.
King, Benjamin Rush, mc univ Pennsylvania 58, cb 78, Leighton.
Kitchens, James Monroe, Oakville.
Masterson, Abner Aaron, mc univ Louisville 89, cb 89, Landersville.
Masterson, John Thomas, mc univ Louisville 89, cb 89, Avoca.
Pitts, James Thomas, mc univ Nashville 86, cb 89, Hillsboro.
Ponder, Abram Virgil, Moulton.
Robinson, John Alexander, mc St. Louis, Mo. 72, cb 78, Leighton.
Shegog, George, mc King's, Dublin, Ireland 46, cb 78, Brick.

Moved into the county—Isham W. Fennell, from Madison county to Courtland.

Moved out of the county—Calvin A. Crow, from Moulton to Florence; John M. Clark, from Moulton to Russellville, Franklin county; John G. Frierson, from Courtland to Nashville, Tenn.; John Samuel Houston, from Mt. Hope, Lawrence, to Athens, Limestone county.

LEE COUNTY MEDICAL SOCIETY—Huntsville, 1880.

OFFICERS.

Pr. James M. Love; V. Pr. Aurelius G. Emory; Sec. Jesse G. Palmer; Tr. Charles B. McCoy; H. O. Robert L. Sutton; Censors, Aurelius G. Emory, Levin W. Shepherd, Jesse G. Palmer, Abijah B. Bennett, Robert L. Sutton.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bedell, Robert Bruce, mc univ Nashville 69, cb 81, Opelika.
Bennett, Abijah Benjamin, mc phy and surg Baltimore 81, cb 81, Opelika.
Bruce, Hillary Samford, mc Atlanta 83, cb 83, Auburn.
Drake, John Hodges, mc Atlanta 67, cb 81, Auburn.
Emory, Aurelius Grigsby, mc univ Louisiana 62, cb 81, Opelika.
Frazer, Thomas K., mc Alabama 88, cb 88, Auburn.
Gautier, Tucker H., mc Alabama 87, cb 88, Auburn.
Griffin, William Henry Harrison, mc South Carolina 35, cb 88, Opelika.
Love, James Madison, mc Atlanta 84, cb 85, Wacoochee.

McCoy, Charles Breckenridge, mc phy and surg Baltimore 82, cb 82, Opelika.
Palmer, Jesse Gary, mc phy and surg Baltimore 84, cb Chambers 84, Opelika.
Shepherd, Levin Wilson, mc univ New York 59, cb 89, Opelika.
Sutton, Robert Lee, mc Columbia, D. C. 84, cb 84, Opelika.

Honorary Members.

Floyd, James William Daniel, mc univ Pennsylvania 20, cb 81, Salem.
McCoy, Amos Washington, mc univ New York 53, cb 81, Opelika.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bloodworth, Wiley Washington, mc Jefferson 53, cb 81, Lively.
Foreman, Arthur Levin, mc univ Louisville —, cb 81, Loachapoka.
Fowler, Andrew Jackson, mc Atlanta 85, cb 85, Roxana.
Fuller, Isham Benjamin, cb 81, Smith Station.
Harris, James William, Crawford.
Hobbs, John V., Lively.
Jackson, Henry Harrison, Lively.
Johnson, William Henry, Loachapoka.
Lamar, William Henry, Auburn.
Shelton, Menzo David, mc univ Nashville 69, cb 81, Lively.
Snipes, William Alexander, Beulah.
Wheelis, David H., Beulah.
Williams, David Bullard, mc Georgia Reform —, Opelika.
Williams, John Walter Raleigh, mc Georgia Reform —, Opelika.

Examinations—For the practice of medicine: Robert Lee Sutton, mc Columbia, D. C. 89, Opelika. Certificate awarded.

LIMESTONE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. Theo. Westmoreland; V. Pr. Joseph A. Pettus; Sec. George R. Lewis; Tr. —— ——; H. O. George R. Lewis; Censors, John R. Hoffman, Theophilus Westmoreland, George R. Lewis.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Hatchett, James Benton, mc univ Vanderbilt 90, cb 90, Athens.
Hoffman, John Richardson, mc Jefferson 58, cb 77, Athens.
Houston, John Samuel, mc univ Louisville 77, cb 84, Athens.
Lewis, George Rowland, mc univ Vanderbilt 89, cb 89, Athens.
Pettus, Joseph Albert, mc univ Nashville 67, cb 77, Elkmont.
Rankin, James Caffield Mitchell, mc univ Nashville 58, cb 78, Belle Mina.
Westmoreland, Theophilus, mc univ Nashville 56, cb 79, Athens.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cannon, William Henry, mc univ Tennessee 90, cb 90, Tick Ridge.
Carter, James Jackson, cb 78, Athens.
Collins, James Marshall, cb 78, Athens.
Crutcher, John Sims, mc univ Vanderbilt 89, cb 89, Centre Hill.
Deloney, Isaac Fox, mc univ Louisiana 53, cb Madison 78, Petty.
Dupree, William Jefferson, cb 79, Westmoreland.
Hill, Henry Willis, mc univ New York 49, cb 84, Morrisville.
Mathews, Samuel Jefferson, Elk River.
Mœbes, Otto, cb 78, Athens.
Morris, Elisha Dixon, cb old law 79, cb 78, Athens.
Pettus, Thomas Coleman, cb Madison 77, Pettusville.
Wallace, Nicholas Blackburn, mc Cincinnati 51, cb 78, Elkmont.
Wilkinson, Milton Roil, mc univ Nashville 80, cb 78, Westmoreland.
Williams, George Allen, mc univ Nashville 80, cb 81, Athens.
Wilson, Felix Grundy, mc univ Nashville 80, cb 76, Elkmont.
York, Seaborn Ellis, mc univ Louisville 78, cb 84, Athens.

Moved into the county—John Samuel Houston, from Mt. Hope, Lawrence county, to Athens.

Moved out of the county—William J. Hagan, from Athens to Seattle, Washington.

Examinations—For the practice of medicine: James Burton Hatchett, George Rowland Lewis, mc univ Vanderbilt 89, cb 89, Athens. Certificates awarded.

LOWNDES COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

Pr. Daniel S. Hopping; V. Pr. John A. Pritchett; Sec. Shirley Bragg; Tr. John A. Prichett; H. O. Shirley Bragg; Censors, Shirley Bragg, Charles T. Weatherly, John A. Pritchett, Phillip N. Cilley, Daniel S. Hopping.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bowie, Andrew, mc South Carolina 54, cb 78, Benton.
Bragg, Shirley, mc Alabama 75, cb 79, Lowndesboro.
Cilley, Phillip Noble, mc univ Louisiana 48, cb 78, Lowndesboro.
Crum, William Barton, mc Alabama 88, cb 88, Farmersville.
Dilburn, Samuel George, mc Alabama 75, cb 78, Bragg's Store.
Hopping, Daniel Stiles, mc Jefferson 52, cb 78, Letohatchie.
Pritchett, John Albert, mc univ Virginia 73, cb 78, Hayneville.
Stallings, Thomas D., mc Alabama 89, cb 89, Hayneville.
Weatherly, Charles Taliaferro, mc Atlanta 74, cb 85, Benton.
Weaver, William Calvin, mc univ Tennessee 83, cb 83, Ft. Deposit.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Ansley, John Samuel, mc Atlanta 76, cb 78, Mt. Willing.
Bruner, Oliver Glenn, mc Atlanta 84, cb 84, Ft. Deposit.
Buford, William Lewis, non-graduate, cb 78, Mt. Willing.
Carr, George Washington LaFayette, mc univ Pennsylvania 55, cb 78, Ft. Deposit.
Carr, Phillip E., mc Atlanta 89, cb 89, Ft. Deposit.
Coleman, Aurelius Daniel, mc Alabama 85, cb 80, Mt. Willing.
Haygood, Daniel, mc South Carolina 59, cb 78, Mt. Willing.
Jones, Devotie Davis, mc Atlanta 73, cb 84, Ft. Deposit.
McQueen, Samuel Thomas, mc univ Pennsylvania 55, cb 78, Ft. Deposit.
McRea, Abram Cruser, mc univ Pennsylvania 50, cb 78, Lowndesboro.
Peake, John Samuel, mc South Carolina 54, cb 78, Farmersville.
Peake, William, mc univ Vanderbilt 83, cb 83, Farmersville.
Reese, Charles Edwin, mc Jefferson 56, cb 78, Lowndesboro.
Russell, John Hamilton, cb 78, Sandy Ridge.
Sanderson, Edmond Levi, mc Jefferson 57, cb 78, Letohatchie.
Snow, Eugene Henry Clay, mc univ Tennessee 83, cb 86, Bragg's Store.
Stallings, Thomas Daniel, mc Alabama 89, cb 90, Hayneville.
Stevens, James John, mc Georgia 59, cb 87, Sandy Ridge.
Winnemore, Samuel Eggleston, mc univ New York 56, cb 78, Benton.

Moved into the county--Thomas Daniel Stallings, from Butler county to Hayneville.

Moved out of the county—Paul E. Carr, from Ft. Deposit to Mississippi.

Examinations—For the practice of medicine: Thomas Daniel Stallings, mc Alabama 89, Hayneville. Certificate awarded.

Deaths—John Patrick Mushat, M. D., mc South South Carolina 55, cb 78, Hayneville.

MACON COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

Pr. Wesley F. Hodnett; V. Pr. Thaddeus W. Brunson; Sec. John S. Johnston; Tr. John H. Gautier; H. O. Louis W. Johnston; Censors, William J. Gautier, Wesley F. Hodnett, Thaddeus W. Brunson, Charles L. Boyd, Francis M. Letcher.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Atkeson, Clarence Lee Crawford, mc phy and surg Baltimore 81, cb Lee 82, Notasulga.
Boyd, Charles LeRoy, mc South Carolina 59, cb 79, LaPlace.
Brunson, Thaddeus Warsaw, mc univ Pennsylvania 47, cb 79, Society Hill.

Gautier, John Hosea, mc univ Louisville 88, cb 88, Tuskegee.
Gautier, William James, mc univ Pennsylvania 50, cb 79, Tuskegee.
Hodnett, Wesley Forbush, mc univ Transylvania 36, cb 77, Tuskegee.
Johnston, John Samuel, mc Memphis 89, cb 90, Tuskegee.
Johnston, Louis William, mc Alabama 89, cb 89, Tuskegee.
Letcher, Francis Marion, mc univ Louisiana 61, cb 79, Shorters.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Aiken, James Cyrus, mc Graffenburg 59, cb Tallapoosa 82, Notasulga.
Ellison, James Edwin, mc Georgia 48, cb 77, Creek Stand.
Gilder, Robert Lee, mc Alabama 87, cb Chambers 87, Tuskegee.
Harris, Wiliam Samuel, mc New York 51, cb Bullock 79, Dick's Store.
Lightfoot, John Steele, mc univ Nashville 68, cb 79, Shorter's.
Maygruder, William Perry, mc Georgia 90, cb 90, Tuskegee.
Reynolds, William Albert, Warrior Stand.
Sistrunk, John, mc univ New York 58, cb 79, Society Hill.
Wood, George Pierce, mc Memphis 89, cb 90, Tuskegee.

Moved into the county—Robert Lee Gilder, from LaFayette, Chambers county, to Tuskegee; William Perry Maygruder; George Pierce Wood, to Tuskegee.

Examinations—John Samuel Johnston, mc Memphis 89, cb 90; Louis William Johnston, mc Alabama 89, cb 90; George Pierce Wood, mc Memphis 89, cb 90, Tuskegee. Certificates awarded.

Deaths—Benjamin Franklin Johnson, M. D., mc South Carolina 43, cb 79, Notasulga, January 5, 1890. Frederick William Williams, M. D., mc univ Pennsylvania 52, cb 79, Tuskegee.

MADISON COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. Richard M. Fletcher; V. Pr. Christopher A. Robinson; Sec. Lewis C. Pynchon; Tr. Lewis C. Pynchon; H. O. James L. Darwin; Censors, Milton C. Baldridge, John J. Dement, Albert R. Erskine, Samuel H. Lowry, David H. McLain.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baldridge, Milton Columbus, mc Bellevue 74, cb 78, Huntsville.
Blanton, Charles Edgar, mc univ Vanderbilt 82, cb 82, New Market.
Blanton, James Conroe, mc univ Louisville 76, cb 78, New Market.
Brouillette, Pierre Lawrence, mc Ohio 71, cb 84, Huntsville.
Burke, James Pickens, mc univ Pennsylvania 53, cb 78, Meridianville.
Darwin, James Lanier, mc Bellevue 88, cb 90, Huntsville.
Dement, John Jefferson, mc univ Pennsylvania 53, cb 78, Huntsville.
Erskine, Albert Russell, mc univ Pennsylvania 57, cb 78, Huntsville.

Farley, John Benton, mc univ Vanderbilt 86, cb 86, Whitesburg.
Fletcher, Richard Mathew, mc univ Pennsylvania 54, cb 78, Madison.
Gage, Frederick Fannin, mc univ New York 76, cb Dallas 78, Huntsville.
Hatcher, Archer Wood, cb 82, Hazel Green.
Hinds, Bryan William, mc univ Nashville 66, cb 81, New Hope.
Johnson, Henry Richard, mc univ Nashville 87, cb 87, New Hope.
Layman, Francis Marion, mc univ Nashville 70, cb 87, Mayesville.
Lowry, Samuel Hickman, mc Bellevue 73, cb 78, Huntsville.
McDonnell, Henry, mc univ Louisiana 68, cb 78, Huntsville.
McLain, David Hubbard, mc Alabama 75, cb 78, Mayesville.
Pynchon, Lewis Charlton, mc Jefferson 52, cb 78, Huntsville.
Rivers, William Edward, cb 78, New Hope.
Robinson, Christopher Americus, mc Jefferson 71, cb 78, Huntsville.
Sullivan, George Richard, mc Shelby 60, cb 78, Madison.
Wheeler, William Camp, mc Bellevue 62, cb Colbert 81, Huntsville.

Honorary Member.

Rice, Francisco, Botanico-med. Memphis 57, cb 78, New Market.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Burwell, Edward D., mc Kentucky —, cb 78, Cluttsville.
Flint, James C., mc univ Louisville —, Gurleyville.
Glover, Antony Natalie, mc univ Nashville —, cb 87, Owen's Cross Roads.
Hensley, William Thomas, mc univ Nashville —, Triana.
Jones, John Andrew R., mc univ Nashville 73, cb 78, New Market.
Lipscomb, Elias DeKalb, state board 87, New Market.
Lipscomb, DeKalb, cb 78, New Market.
Macon, Joseph Sumter, mc Atlanta 80, cb 80, Hayes' Store.
McKelvey, William G., cb 74, Ft. Deposit.
Pettus, William David, mc univ Nashville 68, cb Huntsville 78, Cluttsville.
Ridley, James Lucas, mc Shelby 61, cb 78, Huntsville.
Shelby, Antony Boulding, cb 78, Huntsville.
Slaughter, John Richard, mc univ New York 47, cb 78, Huntsville.
Sullivan, William F., cb 82, Berkley.
Watts, John Park, mc univ Louisville 73, cb 78, Hayes' Store.

Moved into the county—William Camp Wheeler, from Cherokee, Colbert county, to Huntsville.

Moved out of the county—John Houston Brazleton, from Berkley to Jefferson county; Robert Augustus Petty, from Hayes' Store to Florence, Lauderdale county.

Examinations—For the practice of medicine: James Lanier Darwin, mc Bellevue 88, Huntsville. Certificate awarded.

Deaths—George D. Norris, M. D., mc univ Maryland 31, February 12, 1890, of intussusception.

MARENGO COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. James H. George; V. Pr. Bryan W. Whitfield; Sec. Charles B. Thomas; Tr. James B. Whitfield; H. O. Robert B. McCants; Censors, Edward H. C. Bailey, James H. George, George Whitfield.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bailey, Edward Howe Corrie, mc univ Virginia 48, cb 78, Demopolis.
Foscue, Francis Lewis, mc Jefferson 84, cb Perry 85, Demopolis.
George, James Hosea, mc South Carolina 67, cb 78, Linden.
McCants, Robert Bell, mc Georgia Southern 82, cb 82, Jefferson.
Ruffin, James Sterling, mc univ Pennsylvania 49, cb 78, Demopolis.
Thomas, Charles Brooks, mc Georgia Southern 83, cb 83, McKinley.
Whitfield, Bryan Watkins, mc univ Pennsylvania 53, cb 79, Demopolis.
Whitfield, Charles Boaz, mc phy and surg Baltimore 71, cb 79, Demopolis.
Whitfield, George, mc univ Pennsylvania 58, cb 78, Old Spring Hill.
Whitfield, James Bryan, mc univ Pennsylvania 67, cb 82, Demopolis.
Wilson, Isham Griffin, mc univ Louisiana 68, cb 78, Demopolis.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allen, James Andrew, mc Graffenburg 53, cb 84, Shiloh.
Allen, William Howard, mc univ Louisville 82, cb 82, Sweetwater.
Bettis, Thomas Jefferson, mc univ Louisiana 61, cb 84, Nicholsville.
Drummond, William Fletcher, mc univ Maryland 49, cb 78, Magnolia.
Evans, Josiah Thomas, mc Jefferson 37, cb 79, Rembert.
Gillespie, Robert Clanton, mc univ Pennsylvania 83, cb 83, Dixon's Mills.
Horn, Francis Clements, mc Alabama 78, cb 78, Uniontown.
Jones, Richard Augustus, mc Jefferson 55, cb 78, Dayton.
Jones, Wade Hampton, mc South Carolina 58, cb 84, Jefferson.
Kimbrough, William Leonard, mc univ Louisiana 81, cb 82, Shiloh.
King, James Moore, mc Alabama 87, cb 87, McKinley.
Lockhart, William Henry, Nanafalia.
McCorkle, Thomas Samuel, mc Alabama 83, cb 83, Dayton.
Morgan, Henry Walter, mc Alabama 73, cb 78, Dayton.
Nixon, William Goodwin, mc univ Pennsylvania 55, cb 78, Nixonville.
Peavy, Julius Franklin, mc Alabama 88, cb 88, Nanafalia.
Pegram, William Edward, cb, old law, 44, cb 79, Dayton.
Poellnitz, Benjamin Bruno, mc univ Louisiana 47, cb 81, Rembert.
Pugh, Braxton Bragg, mc Alabama 89, cb Clarke 89, McKinley.

Pugh, George, mc Alabama 89, cb 89, Hampton.
Slade, Henry, mc Alabama 72, cb 78, Magnolia.
Smith, Seth David, mc univ Louisiana 54, cb 78, Demopolis.
Spotswood, Norborn Dandridge, mc Kentucky 44, cb 82, Linden.
Stone, Augustus Bosworth, mc Alabama 86, cb 86, Rembert.
Strudwick, Edmund, mc Jefferson 57, cb 78, Dayton.
Webb, James, mc univ Pennsylvania 42, cb 78, Faunsdale.
Wood, John Hackworth, mc Alabama 86, cb 86, Dixon's Mills.

Moved into the county—William Henry Lockhart, Julius F. Peavy, to Nanafalia; B. B. Pugh, to McKinley.

Moved out of the county—Arnold Jolly, from Faunsdale to Birmingham.

Retired—Henry Bethea, Faunsdale; Shubal S. King, McKinley; John G. Luther, Luther's Store; Henry W. Reese, Van Dorn; John Thomas, Rembert.

MARION COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

Pr. A. L. Morman; V. Pr. ———; Sec. W. W. White; Tr. W. W. White; H. O. E. L. Morton; Censor, E. L. Morton.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Earnest, A. F., college not given, Winfield.
Guin, Ira A., college not given, Guin.
Guyton, Warren, college not given, Hamilton.
Key, M. H., college and post-office not given.
Martin, James M., college not given, Hamilton.
Morman, A. L., college not given, Bexar.
Morton, E. L., mc Alabama 86, Guin.
White, W. W., college not given, Bear Creek.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cheatham, Lewis, college and certificate not given, Texas.
Clarke, William Fielder, non-graduate, Hamilton.
Cochran, William J., mc Alabama 88, Glen Allen.
Holladay, Walter, Knoxville.
Howell, J. W., Ireland Hill.
Martin, W. C., Hamilton.
Palmer, B. M., Hamilton.
Stewart, Robert, Hamilton.
Vaughn, G. W., Gold Mine.
Vaughn, Levi, Gold Mine.
Whitley, J. M., Winfield.

The report here given is that of last year, and is here reproduced with all its imperfections, and referred to the board of censors at this session, for investigation.

MARSHALL COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

Pr. William May; V. Pr. Lorenzo D. Lusk; Sec. William L. Thomason; Tr. William L. Thomason; H. O. William L. Thomason; Censors, William L. Thomason, William May, Thomas S. May, Joseph J. McGahey.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Hughes, Washington LaFayette, cb 86, Union Grove.
Lowry, John, cb 86, Lumpkin.
Lusk, Lorenzo David, cb Madison, old law, 59, Guntersville.
May, Thomas Sidney, mc univ Vanderbilt 83, cb 86, Guntersville.
May, William, mc univ Vanderbilt 82, cb 86, Warrenton.
Maples, John Henry, cb 87, Arab.
McGahey, Joseph Jefferson, cb 86, Henryville.
Thomason, William Levi, mc univ Nashville 70, cb 86, Guntersville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abel, William George, cb 86, Cottonville.
Barcliff, Thomas Mascoolin, mc univ Tennessee 85, cb 87, Guntersville.
Hall, William P., Hyatt.
Jackson, James Monroe, mc South Carolina 40, cb 86, Guntersville.
Mathews, Francis M., mc univ Vanderbilt 89, cb 89, Peters.
Noel, William Lewis, cb 86, Albertville.
Patterson, Jefferson Jackson, cb Etowah 81, Marshall.
Ryan, Thomas LaFayette, mc univ Nashville 58, Apple Grove.
Scott, Agrippa, mc Atlanta 85, cb 86, Albertville.
Sherman, James Robert, mc Georgia Reform 89, cb 89, Martling.
Slaughter, Charles Jefferson, cb 81, Albertville.
Smith, William George, mc univ Nashville 54, cb 86, Warrenton.

Moved into the county—James R. Sherman, from Georgia to Martling.

Moved out of the county—William M. Ricketts, from Oleander to Morgan county.

Examinations—For the practice of medicine: James Robert Sherman, mc Georgia Reform 89. Certificate awarded.

Deaths—Francis Marion Dixon, M. D., cb 78, Guntersville, Sept. 24, 89, of typhoid fever; Russell Sparks, M. D., cb 87, Red Apple, April 8, 89—thrown from his horse; Charles H. Stewart, M. D., March 25, 1890, of pneumonia.

MOBILE COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

Pr. Thomas S. Scales; V. Pr. Rhett Goode; Sec. Vivian P. Gaines; Tr. Daniel E. Smith; County H. O. Dudley C. Randle; City H. O. Thomas S. Scales; Censors, Geo. A. Ketchum, James F. Heustis, Goronwy Owen, Caleb Toxey, Samuel R. Oliphant.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Cochran, Jerome, mc univ Nashville 61, cb 78, official residence, Montgomery.
Cox, Henry Thomas, mc univ New York 48, cb 78, Mobile.
Crampton, Orson Lucius, mc Bellevue 65, cb 78, Mobile.
Edwards, William Mathews, mc Alabama 80, cb 80, Mobile.
Festorazzi, Angelo, mc Alabama 88, cb 88, Mobile.
Fowler, George Huggins, mc univ Pennsylvania 61, cb 78, Herndon.
Gaines, Vivian Pendleton, mc Alabama 72, mc phy and surg New York 73, cb Choctaw 79, Mobile.
Goode, Rhett, mc Alabama 71, cb 78, Mobile.
Hendon, James Jefferson, mc Alabama 86, cb 86, Mobile.
Heustis, James Fountain, mc univ Louisiana 48, cb 78, Mobile.
Hirshfeld, Henry P., mc univ Pennsylvania 78, cb 78, Mobile.
Hodgson, Samuel Holt, mc Alabama 88, cb 88, Mobile.
Jackson, William Richard, mc Alabama 88, cb 88, Mobile.
Inge, Henry Tutwiler, mc univ New York 83, cb 83, Mobile.
Ketchum, George Augustus, mc univ Pennsylvania 46, cb 78, Mobile.
LeBaron, Charles, mc Alabama 89, cb 89, Mobile.
Marechal, Edwin Lesley, mc Alabama 70, cb Baldwin 86, Mobile.
Mohr, Charles A., mc Alabama 84, cb 84, Mobile.
Oliphant, Samuel Rutherford, mc univ Louisiana 55, cb 78, Mobile.
Owen, Calvin Norris, mc Alabama 88, cb 88, Mobile.
Owen, Goronwy, mc univ Pennsylvania 57, cb 78, Mobile.
Pape, William Barnesmore, mc Alabama 82, cb 82, Mobile.
Patton, William, mc Alabama 76, cb 78, Mobile.
Randle, Dudley Crawford, mc Alabama 85, cb Pickens 79, Mobile.
Sanders, William Henry, mc Jefferson 62, cb 78, Mobile.
Sawyer, William Templeton, mc univ Louisiana 60, cb 78, Whistler.
Scales, Thomas Sidney, mc phy and surg New York 67, cb 78, Mobile.
Smith, Daniel Edgarly, mc Alabama 61, cb 78, Mobile.
Thomas, James Grey, mc univ Pennsylvania 56, cb 78, Mobile.
Tompkins, John Edward, mc univ Vanderbilt 80, cb 81, Mobile.
Toxey, Caleb, mc univ Pennsylvania 60, cb 78, Mobile.

PHYSICANS NOT MEMBERS OF THE SOCIETY.

Cooper, John Henry, mc Alabama 86, cb 86, Citronelle.
Dancer, J. P., non-graduate, Bayou Labatre.

Dedewkey, F. F., mc univ Vienna 58, mc Hahneman 69, Mobile.
Duffield, Alfred Manly, mc univ Boston —, Citronelle.
Duff, W. S., mc Alabama 89, Mobile.
Hall, Alexander, mc univ Louisiana 59, cb 78, Mobile.
Johnson, David Ellis, mc Georgia 68, cb 78, Mobile.
Lea, William J., mc Alabama 86, cb 86, Baldwin.
Lyon, George G., mc univ Pulte 88, cb Baldwin —, Mobile.
Mastin, Claudius Henry, Sr., mc univ Pennsylvania 49, cb 78, Mobile.
Mastin, Claudius Henry, Jr., mc univ Pennsylvania 84, cb 84, Mobile.
Mastin, William McDowell, mc univ Pennsylvania 74, cb 78, Mobile.
McArthur, Andrew Patterson, mc Alabama 85, cb 85, Mobile.
McCarty, Miles Edward, mc Alabama 73, cb 78, Mobile.
Meyers, Augustus, mc St. Louis 88, Mobile.
Michael, Jacob G., mc univ Virginia 60, cb 78, Citronelle.
Murrell, William J., mc New York —, cb 78, Mobile.
Reed, Walter, mc univ Virginia 69, Mt. Vernon.
Roe, Charles King, Spring Hill.
Roemer, Francis John B., mc univ Louisiana 33, cb 78, Spring Hill.
Terrill, James Dixon, Spring Hill.
Walker, Robert Clarence, mc univ Nashville 58, cb 78, Spring Hill.
Webb, Francis A., mc Alabama —, Calverts.

Moved into the county—Edwin Lesley Marechal, from Stockton, Baldwin county to Mobile; George G. Lyon, from Selma to Mobile.

Moved out of the county— Francis Pampanella, from Mobile to Philadelphia, Penn.; Samuel Kilpatrick Reynolds, from Mobile to Baldwin county.

Deaths—William Gibbs Beatty, M. D., mc Atlanta 69, cb 78, Whistler; William Crawford Hicklin, M. D., mc South Carolina 38, cb 78, Mobile; Augustus Jordan Reese, M. D., mc univ Louisiana 49, cb 78, Mobile, September 14, 1889, of Bright's disease.

MONROE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. William W. McMillan; V. Pr. James M. Wiggins; Sec. Geo. W. Gaillard; Tr. George W. Gaillard; H. O. William W. McMillan; Censors, George W. Gaillard, William M. Barroughs, William M. Hestle.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Abernathy, William Henry, mc Alabama 75, Tinela.
Burroughs, Willlam Monroe, mc South Carolina 57, cb 77, Newtown Academy.
Bradley, Hugh, mc univ Pennsylvania 55, cb 77, River Ridge.
Dailey, Fielden Straughn, mc Alabama 71, cb 77, Kempville.
Gaillard, George Walter, mc Louisville 82, cb 83, Perdue Hill.

Gaillard, Samuel Septimus, mc South Carolina 48, cb 77, Perdue Hill.
Hestle, William Monroe, mc Alabama 85, cb 85, Buena Vista.
Jenkins, James Samuel, mc South Carolina —, cb 77, Buena Vista.
McMillan, William Wallace, mc univ Louisiana 58, cb 79, Monroeville.
Scott, Gladin Gorin, mc univ Louisville 85, cb 85, Mt. Pleasant.
Shomo, Joseph Weatherford, mc univ Transylvania 55, cb 77, Mt. Pleasant.
Wiggins, James Monroe, mc Alabama 78, cb 88, Monroeville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Chapman, William Robert, mc Georgia Reform 79, Huchrell.
Draughn, Robert Isaac, mc South Carolina 47, cb 77, Perdue Hill.
Hawthorn, Samuel W., unknown.
Mason, William J., mc Atlanta 84, cb Wilcox 84, Activity.
Russell, James Thomas, mc Atlanta 84, cb 77, Monroeville.
Whissenhant, William, mc univ Vanderbilt 81, cb 81, Buena Vista.

Moved out of the county—Phillip M. Hodgson, from Mt. Pleasant to Stockton, Baldwin county.

Examinations—For the practice of medicine: Phillip Morton Hodgson, mc Alabama 89, cb 89, Mt. Pleasant; Samuel W. Hawthorn. Certificates awarded.

MONTGOMERY COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. John H. Blue; V. Pr. Joseph L. Gaston; Sec. Wooten M. Wilkerson; Tr. Thomas A. Means; H. O. Pascal H. Owen; Censors, John B. Gaston, Richard F. Michel, Samuel D. Seelye, Job S. Weatherly, Luther L. Hill.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Andrews, Glenn, mc univ New York 86, cb 86, Montgomery.
Baldwin, Benjamin James, mc Bellevue 77, cb 83, Montgomery.
Bibb, William George, mc univ Vanderbilt and Bellevue 78, cb 78, Montgomery.
Blue, John Howard, mc Washington, Md. 70, cb 78, Montgomery.
Douglass, James, mc South Carolina 57, cb 78, Montgomery.
Duncan, Charles Kane, mc univ New York 58, cb 85, Montgomery.
Gaston, John Brown, mc univ Pennsylvania 55, cb 78, Montgomery.
Gaston, Joseph Lucius, mc phy and surg New York 85, cb 88, Montgomery.
Hill, Luther Leonidas, mc univ New York 81, cb Jefferson 81, Montgomery.
Jackson, Walter Clark, mc univ Pensylvania 52, cb 78, Montgomery.
Johnston, John Foote, mc South Carolina 48, cb 78, Montgomery.
Jordan, James Reid, mc univ Maryland 84, cb 84, Montgomery.

Kendrick, William Tomlin, mc Atlanta 76, cb Butler 78, Montgomery.
McDade, George Wilkins, s of m New Orleans 61, cb 78, Montgomery.
Means, Thomas Alexander, mc Atlanta 57, cb 84, Montgomery.
Michel, Richard Fraser, mc South Carolina 47, cb 78, Montgomery.
Naftel, Jesse Holmes, mc Alabama 87, cb 87, Pine Level.
Owen, Pascal Harrison, mc univ New York 59, cb Lowndes 78, Montgomery.
Pearson, Benjamin Rush, mc Alabama 81, cb 81, Montgomery.
Pierce, Dunklin, mc univ Louisiana 58, cb Lowndes 78, Montgomery,
Seelye, Samuel Dibble, mc univ New York 55, cb 78, Montgomery.
Watkins, Isaac LaFayette, mc Bellevue 78, cb Bullock 86, Montgomery.
Weatherly, Job Sobieski, mc univ New York 49, cb 78, Montgomery.
Whipple, Henry Lawrence, mc univ New York 44, cb 78, Hope Hull.
Wilkerson, Wooten Moore, mc univ New York 80, cb 80, Montgomery.
Williams, Robert Silas, mc Jefferson 48, cb 84, Mt. Meigs.
Wood, Milton LeGrand, mc Bellevue 77, cb 84, Montgomery.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Arnold, John B.
Baker, Charles C., Panther.
Brown, J. M., Ramer.
Callaway, Charles Wesley, mc univ Vanderbilt 86, cb 86, Pike Road.
Callaway, James Wesley, mc univ Vanderbilt 81, cb Lowndes 82, Snowdoun.
Cutts, William P., Chambers.
Davis, LeRoy Washington, mc Georgia 53, cb 78, Morganville.
Dorsett, Charles Nathaniel (colored), mc univ Buffalo 83, cb 83, Montgomery.
Harris, Andrew Jackson, Stoddard.
Henry, John Hazzard, homeopathist, cb Dallas 79, Montgomery.
Hill, Robert Marcus, mc univ New York 60, cb 78, Mt. Meigs.
Howell, William Henderson, mc Atlanta 80, cb 80, Ramer.
Jackson, Edward Beatty, mc Alabama 85, cb 85, Ramer.
Kirk, Eben Bell, mc Alabama 85, cb Mobile 85, Montgomery.
McCummins, Milton H., Raif Branch.
McDade, James, mc Georgia 71, cb 78, Mt. Meigs.
McGehee, Benjamin Ellsberry, mc univ Louisiana 72, cb 84, Pike Road.
McLean, Frank, mc univ Louisiana 66, cb 78, Hope Hull.
Naftel, St. John, mc univ Vanderbilt 79, cb 80, Naftel.
Nicholson, John Cogburn, mc Jefferson 55, cb 78, Mt. Meigs.
Patton, George Robert, mc univ Vanderbilt 69, cb 78, Montgomery.
Powell, Claudius Washington, mc Alabama 88, Davenport.
Rives, George, Snowdoun.
Sankey, George L., Tharin.
Sankey, John Thomas, cb 84, Tharin.

Sellers, Anthony Hamilton, mc South Carolina 82, cb 84, Ramer.
Steers, Willis Wood, colored, mc univ Michigan 88, cb 88, Montgomery.
Stone, Henry Llewellen, mc univ Maryland 68, retired, Montgomery.
Townsend, James Barnett, mc univ Nashville 78, cb 78, Pine Level.
Watson, Van Buren, s of m Kentucky 78, cb 78, Strata.

Moved into the county—J. M. Brown, to Ramer.

Moved out of the county—Malvern N. Due, from Montgomery to Birmingham; Barna Pitt Ivey, from Montgomey to Midway, Bullock county; John C. Mason, from Snowdoun to Birmingham; James T. Mullins, from Ramer to Troy, Pike county; John Troup Wagnon, from Mt. Meigs, to Crenshaw county.

Examinations—For the practice of medicine: Malvern N. Due, mc phy and surg New York 89, cb 89, Montgomery. Certificate awarded.

MORGAN COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

Pr. Nathaniel A. Barrett; V. Pr. Donald L. Ross; Sec. William L. Dinsmore; Tr. William L. Dinsmore; H. O. Peter Binford; Censors, Benjamin F. Cross, Peter Binford, Enoch J. Conyngton, Richard L. Stephens, Scott L. Roundtree.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barcliff, William Anderson, mc univ Nashville 77, cb 79, Hartsell's.
Barrett, Nathaniel Aldridge, mc univ Vanderbilt 86, cb Lawrence 86, Danville.
Binford, Peter, New Orleans 61, cb 79, Somerville.
Buchley, Walter Colquitt, mc phy and surg New York 85, cb 85, Decatur.
Conyngton, Enoch James, mc St. Louis, Mo. 83, cb 87, New Decatur.
Cross, Benjamin Franklin, mc univ Louisville 57, cb 78, Decatur.
Cross, Shade Eugene, mc univ Louisville 72, cb Lauderdale 87, Decatur.
Dinsmore, David Findley, mc univ Louisville, cb Lawrence 78, Decatur.
Dinsmore, William Louis, mc univ Vanderbilt 81, cb 82, Decatur.
Gill, Joseph Lawrence, mc univ Louisville, one course 69, cb 78, Somerville.
Gillespy, James Clark, mc univ Vanderbilt 81, cb Madison 81, New Decatur.
Hunter, Felix Burwell, mc univ Vanderbilt 81, cb Lawrence 86, Falkville.
Johnson, James Clark, mc univ Maryland 48, cb 88, New Decatur.
Minor, Lucius, mc univ South Carolina 49, cb 78, Trinity.
Ross, Donald Lawrence, mc univ McGill, Montreal, Canada 87, cb 87, New Decatur.
Roundtree, Scott Louis, mc Jefferson 58, cb 78, Hartsell's.

Smith, Daniel Taylor, homeopathist, mc Chicago 81, cb 82, Decatur.
Stevenson, Richard Louis, mc univ Tennessee, one course, cb 75, Flint.
Turney, Joseph Simpson, mc univ Vanderbilt 82, cb 82, Hartsell's.
Winston, David Mason, mc Alabama 86, cb 87, Woodland Mills.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allen, Bynum George.
Black, Frederick, mc univ Vanderbilt 90, cb 90, Decatur.
Burnum, Frank Alexander, Hawk.
Cartwright, Oscar Bishop, mc univ Vanderbilt 75, cb 80, Decatur.
Cason, James Calvin, mc Memphis 72, cb 83, Falkville.
Cook, Henry Wesley, cb old law 57, cb 81, Falkville.
Gaston, James Reeves, mc univ Vanderbilt 76, cb Limestone 78, New Decatur.
Haguebaum, illegal, Sunnyside.
Kitchens, John Malory, mc Atlanta 85, Danville.
Lile, Samuel, mc univ Louisville 88, cb 89, Trinity.
Peck, Cicero, illegal, Fort Bluff.
Peck, William Washington, mc univ Nashville 81, cb 84, Danville.
Ricketts, William Manning (one course), Shelby, Tenn. 59, cb 86.
Ryan, Thomas LaFayette, mc univ Nashville 59, cb 84, Apple Grove.
Sherrill, Robt B., Basham's Gap.
Smith, John Elisha, mc Cleveland, Ohio 56, cb 86, Decatur.
Smith, John Wesley, illegal, Woodland Mills.
Smith, Stanhope, Woodland Mills.
Stevenson, Edison David, mc univ Nashville 68, cb 79, Danville.
Stewart, Andrew Jackson, mc Alabama, Flint.
Thomason, William Black, mc Memphis 85, Cedar Plains.
Wharton, James P., illegal, Blue Springs.
Wilson, Alexander R., illegal, Blue Springs.

Moved into the county—William M. Rickett's, from Oleander, Marshall county. Location not given.

Moved out of the county—Benjamin G. Allen to Tennessee; Swigert to South Carolina; Phillip R. Taylor, from Decatur to Louisville; John B. Sewell, from Decatur to Ensley, Jefferson county; Howell B. Gwin, from Decatur to Birmingham; Robert S. Watkins, from Flint to parts unknown.

Examinations—For the practice of medicine: Benjamin G. Allen, Swigert, Burnam, D. Taylor Smith. Certificates awarded.

PERRY COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

Pr. George M. Corcoran; V. Pr. Willliam B. Jeffries; Sec. Charles A. Wilkerson; Tr. Offa L. Shivers; H. O. Charles A. Wilkerson; Censors, Elias B. Thompson, John M. Sadler, George M. Corcoran, James H. Houston, Charles A. Wilkerson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barron, William Rowan, mc univ Virginia 61, cb 78, Marion.
Bradfield, John, univ South Carolian 45, cb 78, Uniontown.
Bradfield, John Wesley, s of m Kentucky 87, cb 87, Uniontown.
Callier, Armstead M., non-graduate, cb Marion 78, Chadwick.
Corcoran, George Merryman, mc univ Maryland 87, cb Marengo 87, Uniontown.
Crowe, Grattan Bradley, mc Alabama 87, cb Bibb 87, Marion.
Downey, William Thomas, non-graduate, cb 78, Folsom.
Houston, James Hiram, univ Pennsylvania 48, cb 78, Uniontown.
Jeffries, William Bennett, mc Washington, Md. 65, cb 78, Perryville.
Pou, James Rufus, mc South Carolina 54, cb 78, Uniontown.
Sadler, John Milton, mc univ Louisiana 73, cb 78, Uniontown.
Shivers, Offa Lunsford, mc univ Louisiana 73, cb 78, Marion.
Thompson, Elias Benson, mc univ Louisiana 69, cb 78, Marion.
Wilkerson, Charles A., mc univ New York 75, cb 78, Marion.
Wilkerson, William Washington, mc Jefferson 55, cb 78, Marion.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dominick, John Robert Franklin, mc Georgia 71, cb 78, Jerico.
Evans, Charles Albert, mc South Carolina 54, cb 78, Bethlehem.
Langhorne, John Miller, mc univ Pennsylvania —, cb 78, Uniontown.
Lawrence, James Tinsley, non-graduate, Pine Tuckey.
Mears, John Wesley Nathan, mc New York —, cb 78, Hamburg.
Moseley, David Orion, mc Washington, Baltimore 72, cb 78, Perryville.
Tucker, James Burwell, mc Vanderbilt 78, cb 79, Jerico.
Webb, Lucius DeYampert, mc univ New York, 69, cb Hale 78, Scott's Station.

Moved into the county—Grattan Bradley Crowe, from Briarfield, Bibb county, to Marion; John Robert Franklin Dominick, from Mississippi to Jerico.

Moved out of the county—Charles Alston Thigpen, M. D., not located.

Deaths—Francis Asbury Bates, M. D., mc univ Louisiana 43, cb 78, Marion; Robert Foster, M. D , mc South Carolina 47, cb 78, Marion.

PICKENS COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. Joseph Moody; V. Pr. Thomas H. G. Cook; Sec. Frank K. K. Beck; Tr. Samuel H. Hill; H. O. Frank K. K. Beck; Censors, Christopher C. Clear, Newton Hill, Samuel H. Hill, Frank K. K. Beck, Thomas H. G. Cook.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Agnew, James Alaxander, mc Alabama 74, cb 78, Providence.
Beck, Franklin King Kowalewski, mc Alabama 88, cb Mobile 88, Carrollton.
Clear, Christopher Columbus, mc Alabama 85, cb 85, Carrollton.
Cook, Thomas Henry George, mc Alabama 86, cb 86, Stone.
Hill, Newton, mc Alabama 79, cb 85, Pickensville.
Hill, Samuel Feuilleteau, mc South Carolina 52, cb 78, Carrollton.
Hill, Samuel Henry, mc univ Louisville 70, cb 78, Carrollton.
Hinton, William Gaines, mc Georgia 50, cb 79, Carrollton.
Moody, Joseph, mc univ Louisville 71, cb 79, Franconia.
Moorehead, Henry Clay, mc univ Nashville 69, cb 79, Pickensville.
Peebles, Jesse, mc New Orleans 48, cb 84, Stone.
Phillips, Albert Miller, mc univ Nashville 87, cb 87, Pickensville.
Quinn, James Madison, cb 80, Beard's.
Savage, Victor, mc univ Vanderbilt 88, cb Fayette 89, Gordo.
Sterling, Samuel Johnston, mc Alabama 61, cb 78, Olney.
Williams, Henry Lawrence, mc Jefferson 53, cb 78, Dunbar, Miss.
Wyatt, Rufus Roland, mc univ Nashville 84, cb 89, Memphis.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Baird, Duke Orleans, cb 78, Coal Fire.
Brandon, Richard Clifford, cb 88, Gordo.
Duncan, John Francis, mc Alabama 74, cb 78, Beard's.
Gunter, Peter T., mc Memphis 50, cb 79, Coal Fire.
Hancock, Jesse, mc Alabama 75, cb 78, Stafford.
Price, Robert Thomas, mc Alabama 74, cb 78, Lubbub.
Rickman, John W., cb 78, Stafford.
Sanders, Thomas Henry, cb 79, Gordo.

Moved out of the county—John C. H. Jones, from Stone to Mississippi.

Deaths—John Walter McLeod, M. D., mc univ Louisiana 82, cb 84, Bethany.

PIKE COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. Gustavus Hendrick; V. Pr. Pugh H. Brown; Sec. Charles W. Hilliard; Tr. William A. Crossley; H. O. Josephus S. Beard; Censors, Pugh H. Brown, Josephus S. Beard, Edward H. Johnson, Irby W. Hamil, Gustavus Hendrick.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bean, James Madison, mc Bellevue 79, cb 83, Monticello.
Beard, Josephus Simmons, mc univ New York 76, cb 79, Troy.

Brown, Pugh H., mc univ New York 54, cb 78, Troy.
Crossley, William Andrew, mc South Carolina 54, cb 78, Troy.
Duberry, John Hunter, mc Jefferson 56, cb 78, Brundige.
Ford, Elchana Gardner, mc Atlanta Reform 61, cb 78, Troy.
Hamil, Irby Watson, mc univ Louisville 76, cb 78, Goshen Hill.
Hendrick, Gustavus, mc Jefferson 56, cb 78, Brundige.
Hilliard, Charles Wesley, mc Atlanta Reform 61, cb 78, Troy.
Johnson, Edmund Harris, mc univ Washington, Md. 69, cb Crenshaw 82, Troy.
McEachern, James Adolphus, mc univ Louisville 89, cb 89, Brundige.
McSwean, Charles, mc South Carolina 52, cb 78, Brundige.
Mullins, James Thomas, mc Georgia 72, cb Montgomery 82, Troy.
Posey, William Henry, mc Jefferson 53, cb 84, Orion.
Sanders, William Bryan, mc Atlanta 85, cb 86, Milo.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allbritton, George Allen, mc univ Louisville 72, cb Crenshaw 82, Henderson.
Allred, John Park, state board 78, cb 78, Troy.
Blair, Henry Wilson, mc Atlanta 80, cb —, Brundige.
Bledsoe, William, cb 78, Monticello.
Brock, Thomas M., non-graduate, Indian Branch.
Carlisle, Charles Mallory, non-graduate, cb 84, Milo.
Chapman, Charles Hicks, mc Alabama 73, cb Coffee 85, Troy.
Collier, James Marshall, mc univ Virginia 60, cb 78, Troy.
Davis, Robert Henry, cb 84, Brundige.
Davis, Thomas Jefferson, cb 84, Goshen Hill.
Dennis, Thomas Heydenfeldt, mc Graffenburg 58, cb 78, Olustee Creek.
Dismuke, Benjamin James, mc Georgia 57, cb 84, China Grove.
Eiland, William Anderson, mc Atlanta 81, cb 84, Henderson.
Foreman, Henry Jefferson, mc Jefferson 58, cb 79, Brundige.
Russell, James Thomas, mc univ New York 79, cb 84, Troy.
Shirley, James S., non-graduate, Linwood.
Townsend, Andrew Cresswell, mc Jefferson 59, cb 82, China Grove.
Treadwell, Lucius Marcus, (botanic), cb 81, Troy.
Wagnon, John Troup, non-graduate, Hesser.

Moved into the county—James Thomas Mullins, from Birmingham to Troy.

Moved out of the county—Cicero Jones, from Troy to Andalusia, Covington county; James Levin Ellis, from Monticello to Louisville, Barbour county.

Examinations—To begin the study of medicine: Pugh Brown, Troy. Certificate awarded.

For the practice of medicine: Walter B. Hendrick, mc univ Louisville 89, Brundige; Cicero Jones, mc univ Vanderbilt 89, Troy. Certificates awarded.

RANDOLPH COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. William E. White; V. Pr. Wilson L. Heflin; Sec. Powhatan Green Trent; Tr. Powhatan Green Trent; H. O. Cary W. Taylor; Censors, Powhatan Green Trent, Stonewall J. Gay, Jasper D. Liles, Wyatt H. Pool, Cary W. Taylor.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Clegg, James, mc Georgia Reform 49, cb 89, Almond.
Davis, Samuel John, mc Atlanta 82, cb 82, Rock Mills.
Duke, Anderson Welcome, mc Graffenburg 49, cb 79, Graham.
Duke, Jefferson Davis, mc Southern 87, cb 88, Graham.
Gaunt, Elbert Tilman, mc Atlanta 76, cb 84, Wedowee.
Gay, Stonewall Jackson, mc Southern 88, cb 88, Almond.
Heflin, Wilson Lumpkin, mc Georgia 53, cb 85, Louina.
Jordan, Charles Alexander, mc Southern 84, cb 87, Wheelersville.
Liles, Jasper David, mc univ Louisville 70, cb 85, Roanoke.
Lovorn, Robert Monroe, mc Georgia 89, cb 89, Newell.
McClendon, Edward Henry, mc Graffenburg 59, cb 79, Rock Mills.
McManus, Michael, non-graduate, cb 79, Wedowee.
Pool, Wyatt Heflin, mc Georgia 67, cb 79, Roanoke.
Taylor, Cary Willis, mc Atlanta 89, cb 89, Wedowee.
Trent, Powhatan Glover, mc Atlanta 88, cb 88, Rock Mills.
Trent, Powhatan Green, mc Jefferson 67, cb 85, Rock Mills.
Weathers, William, non-graduate, cb 87, High Shoals.
White, Luther Leonidas, non-graduate, cb 79, Roanoke.
White, William Elbert, mc univ Transylvania 40, cb 79, Roanoke.

Moved out of the county—Henry B. Disharoon, from Roanoke to Oneonto, Blount county; Wyatt Heflin, from Wedowee to Birmingham.

Examinations--For the practice of medicine: Cary Willis Taylor, mc Atlanta 89, cb 89, Wedowee. Certificate awarded.

Deaths--Cephus Blair Taylor, M. D., mc Graffenburg 49, cb 79, Rock Mills, February 7, 1890, of morphine poisoning.

RUSSELL COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. Reuben A. Smith; V. Pr. George D. Pascal; Sec. James L. Baker; Tr. James L. Baker; H. O. B. W. Allen; Censors, Reuben A. Smith, George D. Pascal, Benjamin W. Allen, Zachery W. Williams.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allen, Benjamin Washburn, mc Atlanta 84, cb 87, Seale.
Allen, Henry Homer, mc Augusta 83, cb 88, Oswichee.
Black, Nathaniel Spragins, mc univ New York 61, cb 87, Hatchechubbee.
DeGraffenreid, Edwin F., mc univ Pennsylvania 44, cb 87, Seale.
Pascal, George Dennis, mc univ New York 72, cb 87, Hurtsboro.
Smith, Reuben Arnold, mc univ New York 52, cb 87, Hatchechubbee.
Williams, Zachery Walton, mc phy and surg Baltimore 82, cb 87, Glennville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Howard, Thomas Watson, non-graduate, cb 88, Girard.
Jamison, William Washington, mc Georgia, cb 88, Girard.
Scaife, Lewis Wilson, mc univ Louisiana, cb 87, Hurtsboro.

The report here given is that of last year.

SHELBY COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. Andrew T. Rowe; V. Pr. Henry C. McAdams; Tr. Henry C. McAdams; H. O. Wilds S. DuBose; Censors, Joseph R. Morgan, John H. Williams, Chris. C. Oliver, James H. Gunn, Wilds S. DuBose.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Aker, James Wilson, cb 77, Montevallo.
Backus, Henry, cb Dallas (old law) 53, Montevallo.
Blevins, John Richardson, Calera.
Davis, Ralph, mc Georgia 60, cb Bibb 76, Montevallo.
DuBose, Wilds Scott, mc Atlanta 58, cb 77, Columbiana.
Edwards, David, mc Georgia 60, cb 77, Wilsonville.
Farley, Andrew Jackson, mc Alabama 89, cb 90, Bridgeton.
Fields, James Guthrie, cb 77, Calera.
Goodson, Jasper, cb Tuscaloosa (old law) 53, Siluria.
Gunn, James Hamlin, mc Bellevue 69, cb 87, Calera.
McAdams, Henry Clay, mc Alabama 83, cb 83, Shelby.
Meredith, William Bell, mc Alabama 72, cb 77, Montevallo.
Morgan, Joseph, mc univ Louisville 66, cb 77, Shelby Springs.
Oliver, Christopher Carleton, mc Atlanta 69, cb 77, Shelby.
Rowe, Andrew Thomas, mc Georgia 59, cb Lee 72, Columbiana.
Smith, Garland H., mc Alabama 89, cb 90, Siluria.
Taylor, James T., mc univ Pennsylvania 85, cb 90, Montevallo.
Tucker, Milton Robert, mc Georgia 60, cb 77, Helena.
Upham, Edward Fisk, mc Castleton, Vermont 47, cb 90, Shelby.
Williams, John Harford, mc univ Louisville 75, cb 77, Columbiana.
Williams, Harford Isaac, mc Alabama 87, cb 87, Shelby.

PAYSICIANS NOT MEMBERS OF THE SOCIETY.

Denson, Eli Forrest, mc univ Vanderbilt 79, cb (old law) 60, Pelham.
Johnson, Joseph Madison, mc univ Vanderbilt 83, cb 83, Pelham.
Johnson, William Rufus King, mc Atlanta 80, cb 80, Pelham.
McGraw, Allen Edward, mc univ Louisiana 73, cb 77, Harpersville.
Singleton, William Robert, cb Tuscaloosa 56 (old law), Harpersville.

Examinations—For the practice of medicine: Andrew Jackson Farley, mc Alabama 89, cb 90, Bridgeton; Edward Fisk Upham, mc Castleton, Vermont 47, cb 90, Shelby; Garland H. Smith, mc Alabama 89, cb 90, Siluria. Certificates awarded.

Deaths—George Andrew Welden, M. D., mc Atlanta 82, cb 82, Welden.

ST. CLAIR COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. Davis E. Cason; V. Pr. George M. Jones; Sec. Henry S. Garlington; Tr. Henry S. Garlington; H. O. George M. Jones; Censors, James M. McLaughlin, John B. Bass, John W. Ash.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ash, John Winston, mc univ Louisiana 80, cb 80, Springville.
Bass, John Burrell, mc phy and surg Baltimore 70, cb 79, Ashville.
Brewster, Henry Harrison, mc not given (old law) cb 79, Ragland.
Cason, Davis Elmore, mc univ Nashville 70, cb 79, Ashville.
Crump, James Wells, mc Atlanta 75, cb 80, Steele's Depot.
Crump, Henry Green, cb (old law) 79, Seddon.
Dunlap, Henry Gabriel, mc univ Vanderbilt 81, cb 81, Eden.
Garlington, Henry Spright, mc Alabama 87, cb Etowah 87, Ashville.
Jones, George Marshall, cb Jefferson 74, cb 79, Springville.
McLaughlin, James Madison, state board 80, cb 79, Springville.
Steadham, Oliver Marshall, mc Alabama 86, cb Clay 87, Easonville.
Vandergrift, Washington Franklin, mc univ Louisiana 80, cb Clay 80, Branchville.

Honorary Member.

O'Hara, William A., Eden.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abercrombie, John Patterson, mc Alabama 80, cb Jefferson 82, Brompton.
Embry, James Carl, mc Georgia 89, cb 90, Kelly's Creek.
Evans, Richard Proctor, cb (old law) 67, cb 79, Fairview.
Jones, James Hunter, mc Atlanta 55, cb 78, Ragland.
Wear, John Blassingame, cb Clay 79, Eden.

Moved into the county—John P. Abercrombie, from Cedar Grove, Jefferson county, to Brompton; James C. Embry, from Riverside, Shelby county, to Kelly's Creek.

Moved out of the county—James C. Cason, from Broken Arrow to Falkville, Morgan county; Luther W. Sheppard, from Seddon to Bessemer, Jefferson county.

Examinations—For the practice of medicine: Eugene P. Cason, Ashville; James C. Embry, mc Georgia 89, cb 89, Kelley's Creek. Certificates awarded.

SUMTER COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

Pr. Mathew B. Cameron; V. Pr. ———; Sec. William H. Sledge; Tr. ———; H. O. William H. Sledge; Censors, Jesse C. Houston, John C. Parham, Thomas D. Bourdeaux, Mathew B. Cameron, William H. Sledge.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allison, John Thomas, mc South Carolina 50, cb 77, Curle's.
Arrington, Robert Henry, mc univ Louisiana 50, cb 77, Livingston.
Bickley, Thomas Jefferson, mc univ Vanderbilt 81, cb 81, Gainesville.
Bourdeaux, Thomas Devene, mc Louisville 83, cb 83, York.
Brockway, Dudley Samuel, mc Alabama 78, Jefferson 81, cb 78, Livingston.
Cameron, Mathew Bunyan, mc Alabama 86, cb 86, Sumterville.
Hand, Samuel Patton, mc univ Louisiana 83, cb 83, Coatopa.
Hearn, William Thomas, mc Louisville 82, cb 82, Gaston.
Henagan, Darby, mc South Carolina 58, cb 77, Epes.
Henson, John McKenzie, mc univ Pennsylvania 54, cb 80, Coatopa.
Houston, Jesse Crawford, mc univ Louisiana 60, cb 77, Belmont.
Marshall, James Buchanan, mc univ Nashville 72, cb 78, Warsaw.
Parham, John Calhoun, mc s of m Kentucky 77, cb 77, Gainesville.
Sledge, William Henry, mc Alabama 80, cb 80, Livingston.
Vaughn, Amos Lemuel, mc Louisville 84, cb 84, Cuba.
Ward, Henry Bascomb, mc Alabama 78, cb 78, Cuba.
Young, Oliver Cromwell, mc North Western, Mo. 85, cb 85, Almuchee.

Honorary Members.

Garber, Alexander Menzies, mc Transylvania 33, cb 77, Livingston.
Giles, James Hamilton, mc univ Kentucky 57, cb 77, Cuba.
James, William Hamilton, cb 78, York.
Randall, Newton Fox, mc univ Nashville 78, cb 83, Livingston.
Sholl, Edward Henry, mc univ Pennsylvania 56, cb 77, Birmingham.
Smith, Carlos Green, mc univ Pennsylvania 56, cb 77, Palatka, Fla.
Webb, Robert Dickens, mc univ Virginia 50, cb 77, Birmingham.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adam, Solomon C., mc univ Louisville 80, Sherman.
Hale, Robert Hadden, mc Louisville 79, cb 80, York.
Harris, Evan Page, mc univ Louisiana 69, cb —, Rosser.
Harvely, John Bunyan, mc Georgia 58, cb 78, Belmont.
Knighton, Thomas Alexander, mc univ Louisville 88, cb Choctaw 88, York.
Nash, Joseph Thomas, mc univ Louisville 80, cb 80, Livingston.
Pinson, Hammet, mc s of m New Orleans, Burnesville, Miss.

Moved into the county—Thomas Alexander Knighton, from Pennington, Choctaw county, to York.

Moved out of the county—Calvin Martin Sillman, from Ramsey to Meridian, Miss.

Examinations—Ruffin Ash Wright, mc univ Virginia 89; David Witt Welborn, Jr., mc Bellevue 88. Certificates awarded.

Death—James Myers Godfrey, M. D., grand senior counsellor, mc univ Pennsylvania 55, cb 77, Sumterville, of chronic Bright's disease.

TALLADEGA COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

Pr. Barclay W. Toole: V. Pr. John W. Heacock; Sec. Harry R. Boswell; Tr. Thomas J. Lee; H. O. William F. Thetford; Censors, John T. Harrison, Barclay W. Toole, Jason S. McCants, George A. Hill, Harry R. Boswell.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bailey, Robert Emmet, mc Atlanta 66, cb 86, Silver Run.
Boswell, Harry Rives, mc univ Louisville 74, cb 86, Talladega.
Caldwell, William Drayton, mc univ Vanderbilt 88, Lauderdale 88, Eureka.
Castleberry, William Trice, mc Georgia 72, cb 86, Lincoln.
Dixon, John, mc Jefferson 56, cb 86, Fayetteville.
Donaldson, John Thaddeus, mc South Carolina 67, cb 86, Eastaboga.
Embry, Barnett Linton, mc Atlanta 78, cb 86, Riverside.
Gist, Paul, mc Atlanta 66, cb 86, Talladega.
Harrison, John Tinsley, mc Atlanta 81, cb 86, Munford.
Heacock, John William, mc univ Louisiana 66, cb 86, Alpine.
Hill, George Armstrong, mc Jefferson 70, cb 86, Sylacauga.
Keller, David Cincinnatus, mc univ Pennsylvania 47, cb 86, Sylacauga.
Lee, Thomas Jefferson, mc univ Vanderbilt 86, cb 87, Childersburg.
McCants, Jason Samuel, mc Atlanta 66, cb 86, Talladega.
Morton, Hartwell Fisk, cb Fayette 84, Childersburg.
Rhodes, Edward Davis, mc Georgia 60, cb 86, Alpine.

Sims, Albert Gallatin, mc univ Nashville 69, cb 86, Renfro.
Thetford, William Fletcher, mc univ Louisiana 67, N. Y. Polyclinic 84, cb Greene 79, Talladega.
Toole, Barclay Wallace, mc univ Nashville 60, cb 86, Talladega.
Whitten, Edward Hinton, mc Alabama 88, Ironaton.

Honorary Members.

Johnson, Joseph Henry, mc Jefferson 56, cb 86, Talladega.
Mosely, Robert Alexander, mc South Carolina 38, cb 86, Talladega.
Taylor, William, mc univ Louisville 52, cb 86, Talladega.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Brooks, Alpheus Olin, mc Southern 87, cb Clay 87, Eastaboga.
Gorman, Harrison Clayton, mc Georgia 56, cb 86, Alpine.
Groce, Benton Walton, mc Georgia 42, cb 86, Munford.
Hamilton, William Thomas, mc Alabama 80, cb Coosa 80, Jenifer.
Hunter, John James, mc Alabama 80, cb Coosa 80, Ironaton.
Keller, William Carleton, mc univ Vanderbilt 87, cb 87, Sylacauga.
Kelley, William Pace, mc Alabama 84, cb 86, Childersburg.
Mayes, Lorenzo, mc Graffenburg 56, cb 86, Chandler Springs.
Pearson, James Emmet, mc Alabama 88, Sylacauga.
Powell, Joseph Green, mc univ Tennessee 88, Talladega.
Powell, Thomas Jefferson, mc univ Baltimore 66, cb 86, Childersburg.
Ray, Lorenzo Ellis, mc univ Louisville 87, cb Clay 87, Alpine.
Sorrell, William Henry, cb Tallapoosa 82, Childersburg.
Stockdale, John Locke, mc South Carolina 54, cb 86, Talladega.

Death—Sumner Manderville McAlpin, M. D., mc Jefferson 57, cb 86, Alpine, of neurasthenia, July, 1889.

TALLAPOOSA COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

Pr. Robert V. Salmon; V. Pr. Wm. G. Carleton; Sec. James A. Goggans; Tr. John W. Hooper; H. O. James A. Goggans; Censors, George W. Vines, James A. Goggans, Andrew J. Coley, John M. Watkins, Robert V. Salmon.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Banks, Wilson Lumpkin, mc Graffenburg 52, cb 82, Jackson's Gap.
Carleton, William George, mc univ Vanderbilt 82, cb Chambers 82, Dudleyville.
Coley, Andrew Jackson, mc Jefferson 80, cb 82, Alexander City.
Freeman, Jeremiah Summerfield, non-graduate, cb 82, Alexander City.
Goggans, James Adrian, mc univ New York 77, cb 82, Alexander City.

Harlan, John Jefferson, mc Alabama 72, cb 82, Hackneyville.
Hooper, John Wilson, mc Jefferson 74, cb 74, New Site.
Johnston, John Young, Graffenburg 54, cb 82, Walnut Hill.
Lightfoot, Robert Wilson, mc South Carolina 62, cb 82, Alexander City.
Nolen, Abner Jackson, mc Louisville 80, cb 82, New Site.
Pharr, Edward Miller, mc Vanderbilt 82, cb 82, Daviston.
Radford, George Clements, non-graduate, cb 87, Alexander City.
Reagan, Onslow, non-graduate, cb 82, Alexander City.
Salmon, Robert Virgil, mc Alabama 75, cb 82, Dadeville.
Shepard, Jackson Joseph, mc Graffenburg 64, cb 82, Dadeville.
Shepard, Orlando Taylor, mc Graffenburg 54, cb 82, Tohopeka.
Smith, Watt Francis, mc Graffenburg 54, cb 82, Thaddeus.
Tucker, Adolphus Orlando, non-graduate, cb 82, Dadeville.
Vines, George Washington, mc univ Louisiana 71, cb 82, Dadeville.
Watkins, John Milton, mc univ Louisiana 71, cb 82, Camp Hill.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bloodworth, Hiram Watkins, cb Randolph 84, Dadeville.
Davis, Clayton Crawford, mc Alabama 89, cb Chambers 89, Dadeville.
Goggans, James Peterson, State board 51, cb Coosa 82, Alexander City.
Gray, Thomas Marshal, cb 82, Dadeville.
Holloway, William Alphonzo, mc Alabama 89, Fish Pond.
McLendon, Joseph Wyle, mc Jefferson 88, cb 88, Jackson's Gap.
Motley, Joseph Parker, mc Atlanta 86, cb 86, Motley.
Shepard, Philip Madison, mc Graffenburg 54, cb 82, Dadeville.
Ward, Lucius Cincinnatus, cb 82, Daviston.
Webb, Isaac Eugene, mc Atlanta 88, cb 88, Camp Hill.

Moved out of the county—Andrew Jackson Rowe, from Dadeville to Columbiana, Shelby county.

TUSCALOOSA COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

Pr. Joseph L. Fant; V. Pr. Robert A. Ellis; Sec. Oliver H. Burton; Tr. Oliver H. Burton; H. O. John B. Read; Censors, James T. Searcy, Peter Bryce, Joseph L. Fant, Robert Neilson, William G. Somerville.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allen, Alfred Sidney, mc Alabama 81, cb 81, Cottondale.
Bondurant, Eugene DuBose, mc univ Virginia 83, cb 83, Tuscaloosa.
Bryce, Peter, mc univ New York 59, cb 78, Tuscaloosa.
Burton, Oliver Hearne, mc univ Tulane 87, cb 87, Tuscaloosa.
Clifton, John Montgomery, mc Alabama 88, cb 88, Cottondale.
Cochrane, William A., mc univ Pennsylvania 39, cb 78, Tuscaloosa.
Ellis, Robert Austin, mc univ Louisiana 71, cb Pickens 81, Tuscaloosa.

Fant, Joseph Louis, mc South Carolina 76, cb Marengo 78, Tuscaloosa.
Foster, David Lawrence, mc Jefferson 57, cb 78, Tuscaloosa.
Guild, James, mc Jefferson 55, cb 84, Tuscaloosa.
Little, James, mc Atlanta 76, cb 80, Tuscaloosa.
Little, John, mc univ Louisiana 69, cb 78, Tuscaloosa.
Lucius, Richard DeKalb, mc Alabama 71, cb 78, Hickman.
Marlowe, Nicholas Perkins, mc Jefferson 69, cb 78, Tuscaloosa.
Munroe, Dana Elbra, mc Dartmouth 69, cb 89, Vance.
Neilson, Robert, mc Georgia 54, cb 78, North Port.
Nichols, Andrew Barry Crook, mc Philadelphia 69, cb 78, Tuscaloosa.
Searcy, James Thomas, mc univ New York 67, cb 78, Tuscaloosa.
Somerville, William Glassel, mc univ New York 89, cb 89, Tuscaloosa.
Trigg, Arthur Warren, mc Alabama 81, cb 81, Samantha.
Trimm, James, mc Alabama 78, cb 81, North Port.
Williamson, James Lewis, mc Alabama 78, cb 81, North Port.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Appling, H. D., mc ——— —, Butt Station.
Beatty, Douglass Pearson, mc univ New York 57, Hull.
Caldwell, Washington Jackson, cb 84, Hull.
Clements, Alsey, cb 78, Cottondale.
Elrod, William Washington, cb 78, Sipsey Turnpike.
Foster, Ezra, mc Alabama 78, cb Blount 78, Hayes.
Gibson, Robert Franklin, mc univ Transylvania 69, cb 78, Tuscaloosa.
Harris, John James, Milldale.
Hester, William, mc univ New York 67, cb 78, Tuscaloosa.
McCord, Charles Richard, cb 80, Marcumville.
Olive, George Washington, cb Fayette 81, New Lexington.
Parker, William Thomas, mc s of m New Orleans 60, cb 84, Sylvan.
Read, James Brahana, mc univ Louisiana 46, cb 78, Tuscaloosa.
Shockley, Thomas Washington, mc Alabama 85, cb 86, Coker.
Smothers, William Jonas, mc Alabama 80, cb Pickens 80, Coker.
Thompson, James W., cb 78, Tuscaloosa.
Toomy, Mark Antony, cb 78, Hagler.
Walker, Robert James, cb 78, Cottondale.

Moved into the county—John James Harris, from Jefferson county to Milldale; Thomas Washington Shockley, from Pickens county to Coker; Robert James Walker, from Jefferson county to Cottondale.

Moved out of the county—Frank K. Beck, from Cottondale to Pickens county; William Crump, from Marcumville; Frank H. Simms, from Tuscaloosa to Europe.

WALKER COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

Pr. William C. Rosamond; V. Pr. Richard P. Griffin; Sec. Andrew M. Stovall; Tr. David H. Camack; H. O. William C. Rosamond; Censors, Joseph A. Goodwin, William C. Rosamond, Andrew M. Stovall, Richard P. Griffin, William L. Gravlee.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ballenger, Joseph W., mc univ Vanderbilt 84, cb Cullman 87, Carbon Hill.
Camack, David Hubbard, cb (old law) 72, cb 81, Jasper.
Cunningham, William M., mc univ Vanderbilt 84, cb 84, Corona.
Goodwin, Joseph Anderson, mc Alabama 74, cb 81, Jasper.
Gravlee, William Lewis, mc univ Vanderbilt 82, cb 82, Marietta.
Griffin, Richard Park, cb (old law) 72, cb 81, Day's Gap.
Guilder, James Lester, cb (old law) 72, cb 81, Eldridge.
Hayes, James Simpson, cb (old law) 72, cb 81, Horse Creek.
Hendon, Albert Dixon, cb (old law) 74, cb 81, Townley.
Jackson, Charles Beaufort, mc Atlanta 85, cb Tuscaloosa 85, Horse Creek.
Manasco, John, cb (old law) 76, cb 81, Townley.
Miller, Virgil Martin, cb (old law) 54, cb 81, Jasper.
Shipp, Marcellus W., mc Alabama 85, cb Fayette 85, Carbon Hill.
Stovall, Andrew McAdams, mc univ Louisville 80, cb 80, Jasper.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Davis, Daniel, mc Atlanta 89, cb 89, Horse Creek.
Dearth, James Kitridge, non-graduate, Jasper.
Little, David Hubbard, cb Jefferson 80, Eldridge.
Mathews, Robert Julius, mc Georgia 76, cb 84, Horse Creek.
Phillip, Alexander B., mc univ Vanderbilt 85, cb 85, Horse Creek.
Stevenson, William Henry, mc Atlanta —, Day's Gap.
Woodson, Louis A., mc univ Virginia 61, cb —, Day's Gap.
Woodson, Robert Scott, mc univ Vanderbilt 89, cb —, Day's Gap.

Moved out of the county—Giles S. Bryan, from Jasper to Amory, Mississippi; John M. Miller, from Cordova to Blosburg, Jefferson county.

Examinations—For the practice of medicine: Daniel Davis, mc Atlanta 89, Horse Creek; ——— Hawkins, mc Atlanta 89, —. Certificates awarded.

WASHINGTON COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

Pr. John W. Wood; V. Pr. ——; Sec. ——; Tr. ——; H. O. John Gordon; Censors, John Gordon, John W. Wood, William H. Boykin.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Boykin, William Henry, mc Alabama 87, cb 88, Escatawpa.
Gordon, John, mc Ohio 66, cb 87, Healing Springs.
Wood, John Wesley, mc univ Virginia 80, cb 87, Koenton.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Lyons, Oliver, system not known, Washington Mills.

WILCOX COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

Pr. Edmund Gaillard; V. Pr. Rufus H. Kilpatrick; Sec. Lucius E. Starr; Tr. Lucius E. Starr; H. O. Rufus H. Kilpatrick; Censors, Lucius E. Starr, Samuel R. Bonner, Thomas G. Jenkins, Edward D. McDaniel, Flavius F. Kimbrough.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Adams, Blakenship, mc Atlanta 84, cb 84, Pine Apple.
Adams, David, mc Georgia 68, cb 81, Pine Apple.
Benson, James Cook, mc Alabama 87, Sedan.
Crum, Floyd Elmore, mc univ Louisiana 73, cb 79, Arlington.
Curtis, Alonzo Bittle, mc Alabama 82, cb 79, Lower Peach Tree.
Curtis, Christopher Columbus, mc Alabama 87, cb 79, Lower Peach Tree.
Dale, William Bonner, mc univ Louisiana 61, cb 79, Allenton.
Dansby, David McAdams, mc Georgia 35, cb 80, Rehoboth.
Dansby, John Quincy, mc Alabama 74, cb 80, Rehoboth.
Gaillard, Edmund, mc South Carolina 30, cb 79, Camden.
Gaston, David Finis, mc univ Louisiana 82, cb 82, Boiling Springs.
Gibson, Albert Madison, mc Alabama 85, cb 85, Lower Peach Tree.
Godbold, John Calhoun, mc Alabama 79, cb 79, Nellie.
Haddox, William Thomas, mc univ Louisiana 58, cb 79, Pine Hill.
Harris, Albert Duggett, mc South Carolina 67, cb 79, Pine Apple.
Jenkins, Thomas Griffin, mc univ Louisiana 48, cb 79, Camden.
Jones, John Paul, mc s of m New Orleans 61, cb 79, Camden.
Jones, Joseph Harvey, mc univ Louisville 80, cb 80, Allenton.
Kilpatrick, Rufus Hall, mc Alabama 88, cb 88, Camden.

Kimbrough, Flavius F., mc Alabama 89, cb 89, Catherine.
Lee, Thomas, mc South Carolina 57, cb 80, Furman.
McDaniel, Edward Davies, mc South Carolina 57, cb 79, Camden.
Palmer, Ransom Dabney, mc univ Louisiana 86, cb 86, Furman.
Purifoy, John Howard, mc Jefferson 59, cb 81, Furman.
Purnell, William Thomas, mc Alabama 76, cb 76, Prairie Bluff.
Ramsey, David Wardlaw, mc univ Louisiana 70, cb 78, Pine Apple.
Starr, Lucius Ernest, mc Alabama 61, cb 78, Camden.
Watson, William Walred, mc univ Virginia 87, cb 87, Furman.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cole, William, Snow Hill.
Cook, Samuel Benjamin Alexander, cb 85, Bethel.
Gullett, William Nathan, mc Alabama 72, Nellie.
King, Samuel S., mc univ Louisiana —, cb 85, Catherine.
Lee, John Frederick, cb 83, Allenton.
Southall, James, retired, cb 79, Lower Peach Tree.
Trammell, James Dunlap, mc univ Nashville 57, cb 86, Arlington.
Watson, John S., mc Alabama 85, Sunny South.

Moved into the county—James H. Weir, from Dallas county to Boiling Springs.

Moved out of the county—L. Walker Jenkins, from Camden to Jefferson county; James H. Weir, from Boiling Springs to parts unknown.

Examinations—For the practice of medicine: Flavius F. Kimbrough, mc Alabama 89, cb 89, Catherine. Certificate awarded.

WINSTON COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

Pr. Thomas P. Deweese; V. Pr. William R. Adkins; Sec. C. Harvey Johnson; Tr. C. Harvey Johnson; H. O. Thomas P. Deweese; Censors, Thomas P. Deweese, C. Harvey Johnson, William R. Adkins, David Carroll, William J. Painter.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Adkins, William Riley, cb Tuscaloosa 77, Double Springs.
Carroll, David, cb Blount 71, Double Springs.
Deweese, Thomas Peters, mc univ Louisville 85, cb Walker 85, Nauvoo.
Ford, David Benjamin, cb 88, South Lowell.
Johnson, Calaway Harvey, mc Alabama 85, cb 88, Houston.
Painter, James William, cb 88, Double Springs.
Taylor, John Calhoun, mc Alabama 89, cb 89, Ark.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bailey, James Watson, homeopathist, cb 88, Houston.
Hood, John Wesley, non-graduate, Addison.
Roden, Benjamin W., botanic, cb Marion 87, Ark.
Wilson, John, cb (old law) 86, cb 87, Lusk.

Examinations—For the practice of medicine: John Calhoun Taylor, mc Alabama 89, cb 89, Ark. Certificate awarded.

THE ROLL OF THE COLLEGE OF COUNSELLORS.

REVISION OF 1890.

THE GRAND SENIOR COUNSELLORS.

Abernethy, William Henry, Tinela—Tuscaloosa session.....1873
Baldridge, Milton Columbus, Huntsville—Birmingham session....1877
Barclay, James Paxton, Eutaw—Huntsville session.....1880
Brown, Pugh H., Troy—Huntsville session.....1880
Bryce, Peter, Tuscaloosa—Tuscaloosa session.....1873
Cason, Davis Elmore, Ashville—Huntsville session.....1880
Cochran, Jerome, Mobile—Tuscaloosa session.....1873
Cross, Benjamin Franklin, Decatur—Selma session.....1879
Dement, John Jefferson, Huntsville—Tuscaloosa session.....1873
Furniss, John Perkins, Selma—Mobile session 1876
Gaines, Vivian Pendleton, Mobile—Selma session.. 1879
Gaston, John Brown, Montgomery—Montgomery session. 1875
Hayes, Robert Hughes, Union Springs—Huntsville session.....1880
Herbert, Curtis Burke, Greenville—Selma session.....1879
Hogan, Samuel Mardis, Union Springs—Montgomery session.....1875
Hopping, Daniel Stiles, Letohatchie—Birmingham session.....1877
Jackson, Robert Dandridge, Summerfield—Tuscaloosa session.....1873
Jackson, Walter Clark, Montgomery—Tuscaloosa session 1873
Johnston, William Henry, Birmingham—Montgomery session....1875
Ketchum, George Augustus, Mobile—Tuscaloosa session.....1873
Luckie, James Buchner, Birmingham—Mobile session.....1882
McKinnon, John Alexander, Selma—Mobile session.....1876
McKittrick, Adam Alexander, Evergreen—Tuscaloosa session.....1873
Means, Thomas Alexander, Montgomery—Eufaula session.....1878
Michel, Richard Fraser, Montgomery—Tuscaloosa session.....1873
Mitchell, William Augustus, Eufaula—Birmingham session.....1877
Phillips, William Crawford, Selma—Selma session.....1879
Peterson, Francis Marion, Greensboro—Huntsville session.....1880
Prince, Francis Marion, Bessemer—Birmingham session.....1877
Pritchett, John Albert, Hayneville—Mobile session.....1876
Rorex, James Polk, Scottsboro—Huntsville session.....1880
Sanders, William Henry, Mobile—Eufaula session 1878
Sears, John William, Birmingham—Birmingham session.....1877
Seelye, Samuel Dibble, Montgomery—Montgomery session.....1875
Sholl, Edward Henry, Birmingham—Huntsville session.....1880
Starr, Lucius Ernest, Camden—Selma session.... 1874

Thigpen, Job, Greenville—Selma session.....1879
Thomas, James Grey, Mobile—Huntsville session.....1880
Wall, Conrad, Forest Home—Huntsville session.....1880
Weatherly, Job Sobieski, Montgomery—Tuscaloosa session.....1873
Webb, Robert Dickens, Birmingham—Tuscaloosa session.....1873
Wright, Milton Roil, Gadsden—Huntsville session.....1880

THE SENIOR COUNSELLORS.

Bragg, Shirley, Lowndesboro—Greenville session.....1885
Brockway, Dudley Samuel, Livingston—Mobile session.....1882
DuBose, Wilds Scott, Columbiana—Montgomery session.....1881
Fletcher, Richard Mathew, Madison—Montgomery session.....1881
Franklin, Charles Higgs, Union Springs—Mobile session.....1882
Goggans, James Adrian, Alexander City—Birmingham session....1883
Goodwin, Albert, Eufaula—Greenville session.....1885
Goodwin, Joseph Anderson, Jasper—Mobile session.....1882
Hendrick, Gustavus, Brundige—Montgomery session.....1881
Hill, Samuel Henry, Carrollton—Mobile session.....1882
Huggins, Jacob, Newbern—Selma session.....1884
Inge, Henry Tutwiler, Mobile—Greenville session.....1885
Jay, Andrew, Evergreen—Mobile session.....1882
Jones, Capers Capehart, East Lake—Montgomery session.....1881
Jones, John Paul, Camden—Selma session.....1884
Kendrick, Joel Beder, Birmingham—Greenville session.....1885
Kendrick, Joel Cloud, Greenville—Mobile session.....1882
Kendrick, William Toulmin, Montgomery—Montgomery session..1881
Lowry, Samuel Hickman, Huntsville—Greenville session.....1885
Moody, Joseph, Franconia—Mobile session 1882
Robertson, Thaddeus Lindlay, Birmingham—Montgomery session.1881
Searcy, James Thomas, Tuscaloosa—Selma session.....1884
Sledge, William Henry, Livingston—Mobile session.....1882
Smith, Daniel Edgarly, Mobile—Mobile session.....1882
Stovall, Andrew McAdams, Jasper—Mobile session.....1882
Thetford, William Fletcher, Talladega—Montgomery session.....1881
Trent, Powhatan Green, Rock Mills—Selma session 1884
Ward, Henry Bascom, Cuba—Birmingham session.....1883
Whelan, Charles, Birmingham—Greenville session 1885
Wilkerson, Wooten Moore, Montgomery—Birmingham session....1883

THE JUNIOR COUNSELLORS.

Baldwin, Benjamin James, Montgomery—Anniston session.....1886
Binford, Peter, Somerville—Montgomery session.....1888
Crook, John Martin—Mobile session.....1889
Darby, John Isaac, Columbiana—Tuscaloosa session.....1887
Goode, Rhett, Mobile—Mobile session.....1889

Harlan, John Jefferson, Hackneyville—Montgomery session.....1888
Hill, Luther Leonidas, Montgomery—Montgomery session.....1888
Hudson, William Henry, La Fayette—Mobile session 1889
LeGrand, John Calhoun, Anniston—Mobile session.....1889
Marechal, Edwin Lesley, Mobile—Mobile session.....1889
McWhorter, Abbott Milton, Gaylesville—Tuscaloosa session.....1887
Nolen, Abner Jackson, New Site—Anniston session.....1886
Redden, Robert James, Sulligent—Tuscaloosa session..... 1887
Rushing, Francis Marion, Elba—Anniston session.....1886
Toole, Barclay Wallace, Talladega—Mobile session.....1889
Whaley, Lewis, Birmingham—Anniston session.....1886
Wheeler, William Camp, Huntsville—Montgomery session.....1888
Wilkinson, James Anthony, Flomaton—Anniston session.....1886

THE COUNSELLORS ELECT.

Barnes, Benjamin Shields, Suggsville, Clarke county.
Deweese, Thomas Peters, Nauvoo, Winston county.
Dowling, Oscar, Columbia, Henry county.
Duncan, Augustus Meek, West Greene, Greene county.
Lawrence, George Dougherty Washington, Cedar Bluff, Cherokee county.
Purdon, John Edward, Cullman, Cullman county.
Robinson, Christopher Columbus, Huntsville, Madison county.
Thomason, William Levi, Guntersville, Marshall county.
Wilkerson, Charles A., Marion, Perry county.

Grand Senior Counsellors..... 42
Senior Counsellors..... 30
Junior Counsellors..... 18
Counsellors Elect..... 9— 99

THE ROLL OF COUNSELLORS BY CONGRESSIONAL DISTRICTS.

On this roll the names of the counsellors are given by congressional districts. It is intended to serve as a guide in the election of new counsellors with a view to the distribution of them in approximate proportion to the number of members in the several districts. It is not considered to be good policy, and it is not considered to be fair and right to give a few large towns greatly more than their pro rata share of counsellors. The calculations are made to the nearest whole numbers.

THE FIRST DISTRICT.

Names of Counsellors—W. H. Abernethy, B. S. Barnes, Jerome Cochran, Rhett Goode, H. T. Inge, Vivian P. Gaines, George A. Ketchum, E. L. Marechal, W. H. Sanders, D. E. Smith, J. G. Thomas.

Clarke,	members	16	counsellors	1
Choctaw,	"	18	"	0
Marengo,	"	13	"	0
Mobile,	"	31	"	9
Monroe,	"	12	"	1
Washington,	"	3	"	0
Totals,		93		11

One counsellor to every eight members.

THE SECOND DISTRICT.

Names of Counsellors—B. J. Baldwin, Pugh H. Brown, J. B. Gaston, Gustavus Hendrick, C. B. Herbert, L. L. Hill, W. C. Jackson, Andrew Jay, J. C. Kendrick, W. T. Kendrick, A. A. McKittrick, T. A. Means, R. F. Michel, S. D. Seelye, Job Thigpen, J. S. Weatherly, Conrad Wall, W. M. Wilkerson, J. A. Wilkinson.

Baldwin,	members	3	counsellors	0
Butler,	"	18	"	4
Conecuh,	"	8	"	2
Covington,	"	7	"	0
Crenshaw,	"	9	"	0
Escambia,	"	10	"	1
Montgomery,	"	27	"	10
Pike,	"	15	"	2
Totals,		97		19

One counsellor to every five members.

THE THIRD DISTRICT.

Names of Counsellors—John I. Darby, Oscar Dowling, C. H. Franklin, Albert Goodwin, Robert H. Hayes, S. M. Hogan, Wm. A. Mitchell, F. M. Rushing.

Barbour,	members	12	counsellors	2
Bullock,	"	20	"	3
Coffee,	"	5	"	1
Dale,	"	11	"	0
Geneva.	"	13	"	0
Henry,	"	16	"	2
Lee,	"	13	"	0
Russell,	"	7	"	0
Totals		97		8

One counsellor to every twelve members.

THE FOURTH DISTRICT.

Names of Counsellors—Shirley Bragg, Jno. P. Furniss, D. S. Hopping, Jacob Huggins, R. D. Jackson, J. Paul Jones, Jno. A. McKinnon, F. M. Peterson, W. C. Phillips, Jno. A. Pritchett, L. E. Starr, C. A. Wilkerson.

Dallas,	members	21	counsellors	4
Hale,	"	12	"	2
Lowndes,	"	10	"	3
Perry,	"	15	"	1
Wilcox,	"	28	"	2
Totals,		86		12

One counsellor to every seven members

THE FIFTH DISTRICT.

Names of Counsellors—James A. Goggans, W. H. Hudson, A J. Nolen, J. J. Harlan.

Autauga,	members	8	counsellors	0
Bibb,	"	7	"	0
Chambers,	"	16	"	1
Chilton,	"	9	"	0
Clay,	"	19	"	0
Coosa,	"	13	"	0
Elmore,	"	13	"	0
Macon,	"	9	"	0
Tallapoosa,	"	21	"	3
Totals,		115		4

One counsellor to every twenty-eight members,

THE SIXTH DISTRICT.

Names of Counsellors—D. S. Brockway, Peter Bryce, A. M. Duncan, Thomas P. Deweese, J. A. Goodwin, S. H. Hill, W. H. Johnston, C. C. Jones, J. B. Kendrick, J. B. Luckie, Joseph Moody, F. M. Prince, T. L. Robertson, R. J. Redden, J. T. Searcy, J. W. Sears, E. H. Sholl, W. H. Sledge, A. M. Stovall, H. B. Ward, R. D. Webb, Chas. Whelan, Lewis Whaley.

Fayette,	members	15	counsellors	0
Greene,	"	10	"	1
Jefferson,	"	58	"	11
Marion,	"	8	"	0
Pickens,	"	17	"	2
Lamar,	"	7	"	1
Sumter,	"	17	"	3
Tuscaloosa,	"	22	"	2
Walker,	"	14	"	2
Winston,	"	7	"	1
Totals		175		23

One counsellor to every seven members.

THE SEVENTH DISTRICT.

Names of Counsellors—D. E. Cason, W. S. DuBose, Jno. M. Crook, G. D. W. Lawrence, J. C. LeGrand, A. M. McWhorter, Jas. E. Purdon, W. L. Thomason, P. G. Trent, B. W. Toole, M. R. Wright, W. F. Thetford.

Blount,	members	16	counsellors	0
Calhoun,	"	28	"	2
Cherokee,	"	10	"	1
Cleburne,	"	11	"	0
Cullman,	"	9	"	1
DeKalb,	"	14	"	1
Etowah,	"	19	"	1
Marshall,	"	8	"	1
Randolph,	"	19	"	1
St. Clair,	"	12	"	1
Shelby,	"	21	"	1
Talladega,	"	20	"	2
Totals,		187		12

One counsellors to every fifteen members.

THE EIGHTH DISTRICT.

Names of Counsellors—M. C. Baldridge, Peter Binford, B. F. Cross, J. J. Dement, R. M. Fletcher, S. H. Lowry, C. C. Robinson, J. P. Rorex, W. C. Wheeler.

Colbert,	members	14	counsellors	0
Franklin,	"	13	"	0
Jackson,	"	16	"	1
Lauderdale,	"	14	"	0
Lawrence,	"	16	"	0
Limestone,	"	7	"	0
Madison,	"	24	"	6
Morgan,	"	20	"	2
Totals		124		9

One counsellor to every fourteen members.

GENERAL SUMMARY.

The whole number of members in the State is 971, and the whole number of counsellors 100. This gives one counsellor for every 9.71 members; for convenience, we may say, one counsellor to every 10 members, about.

The first district, with 93 members and 11 councellors, has one counsellor more than it is entitled to.

The second district, with 94 members and 19 counsellors, has ten counsellors more than it is entitled to.

The third district, with 97 members and 8 counsellors, has one counsellor less than it is entitled to.

The fourth district, with 86 members and 12 counsellors, has three counsellors more than it is entitled to.

The fifth district, with 115 members and 4 counsellors, has seven counsellors less than it is entitled to.

The sixth district, with 175 members and 24 counsellors, has seven counsellors more than it is entitled to.

The seventh district, with 187 members and 13 counsellors, has five counsellors less than it is entitled to.

The eighth district, with 124 members and 9 counsellors, has three counsellors less than it is entitled to.

THE ROLL OF CORRESPONDENTS.

REVISION OF 1890.

Bizzell, William David, M. D., Atlanta, Georgia 1881
Bozeman, Nathan, M. D., New York..... 1889
Garnett, A. F., M. D., Hot Springs, Arkansas.....1875
Hoffman, John Richardson, M. D., Athens, Alabama.....1890
McDaniel, Edward Davie, M. D., Camden, Alabama 1889
Moses, Gratz A., M. D., St. Louis, Missouri..... 1874
Osborn, Thomas Childress, M. D., Cleburne, Texas.....1885
Phillips, N. D., M. D., Gainesville, Florida.....1876
Richardson, Nicholas Davis, M. D., Nashville 1882
Summers, Thomas O., M. D., Jacksonville, Florida.....1875
Toxey, Caleb, M. D., Mobile, Alabama..... 1885

THE ROLL OF OFFICERS.

REVISION OF 1890.

PRESIDENT:

WILLIAM HENRY SANDERS, M. D..... .....Mobile.

VICE-PRESIDENTS:

Senior—SHIRLEY BRAGG, M. D..... Lowndesboro.
Junior—WILLIAM C. WHEELER, M. D.....Huntsville.

SECRETARY:

THOMAS ALEXANDER MEANS, M. D.....Montgomery.
Term expires, 1893.

TREASURER:

WALTER CLARK JACKSON, M. D.....Montgomery.
Term expires, 1893.

THE BOARD OF CENSORS AND COMMITTEE OF PUBLIC HEALTH.

Dement, John Jefferson, Huntsville.....1890–1895
Ketchum, George Augustus, Mobile.....1890–1895
Sholl, Edward Henry, Birmingham..... 1889–1894
DuBose, Wilds Scott, Columbiana.....1889–1894

Cochran, Jerome (Senior Censor), Mobile.....1888–1893
Gaston, John Brown, Montgomery.....1888–1893
Seelye, Samuel Dibble, Montgomery.....1887–1892
Weatherly, Job Sobieski, Montgomery 1887–1892
Baldwin, Benjamin James, Montgomery.....1886–1891
Bryce, Peter, Tuscaloosa..... 1886–1891

ORATOR.

EDWARD POWELL RIGGS, M. D.....Birmingham.

ALTERNATE ORATOR:

BENJAMIN LEON WYMAN, M. D.....Birmingham.

MONITOR:

JOHN BROWN GASTON, M. D..... Montgomery.

STATE HEALTH OFFICER:

JEROME COCHRAN, M. D.....Mobile.
(Official residence, Montgomery, Alabama.)
Term expires, 1893.

PLACE OF MEETING—HUNTSVILLE.
Time of meeting, the second Tuesday in April, 1891

THE SCHEDULE OF REGULAR REPORTERS.

SESSION OF 1891.

GLENN ANDREWS, M. D., Montgomery—
Hypnotics: Their Mode of Action and the Principles of their Selection in Practice.

ROBERT TAYLOR BYRD, M. D., Boligee—
Report of Cases, and Comments Thereon.

SHELBY CHADWICK CARSON, M. D., Bessemer—
Therapeutic Uses of Nitro-Glycerine and of Nitrite of Amyl.

JAMES LANIER DARWIN, M. D., Huntsville—
Antipyretics; Their Use and Abuse.

AURELIUS GRIGSBY EMORY, M. D., Opelika—
What Effect does Quinine Exert in so-called continued Malarial and Typho-Malarial Fevers.

LUTHER LEONIDAS HILL, M. D., Montgomery—
The Modern Treatment of Wounds.

WILLIAM HENRY HUDSON, M. D., LaFayette—
A Clinical Study of Continued Fever.

JOEL BEDER KENDRICK, M. D., Birmingham—
Influenza as it has Prevailed in Alabama.

GEORGE AUGUSTUS KETCHUM, M. D., Mobile—
Shock and Collapse.

CHARLES A. MOHR, M. D., Mobile—
The Chemistry and Relative Value of Antiseptics and Disinfectants.

HENRY NOLLNER ROSSER, M. D., Birmingham—
Salpingitis, Hydro and Pyo-Salpinx.

JAMES THOMAS SEARCY, M. D., Tuscaloosa—
The Relation of Intemperance to Crime in Alabama.

JOSEPH JULIUS WYNN, M. D., Clayton—
The History of an Epidemic of Scarlet Fever in Barbour county, Alabama.

SCHEDULE OF SPECIAL COMMITTEES.

BOARD OF TRUSTEES OF THE LIBRARY AND MUSEUM:

Drs. BENJAMIN J. BALDWIN, JOHN B. GASTON, SAMUEL D. SEELYE.

BOARD OF TRUSTEES ON DOCTORS' HOME.

Drs. EDWARD H. SHOLL, JOHN C. LEGRAND, PETER BRYCE, M. C. BELDRIDGE, BENJAMIN J. BALDWIN.

SCHEDULE OF THE ANNUAL SESSIONS SINCE THE ORGANIZATION IN 1868.

Selma—Albert Gallatin Mabry.....1868
Mobile—Albert Gallatin Mabry.....1869
Montgomery—Richard Fraser Michel.....1870
Mobile—Francis Armstrong Ross.....1871
Huntsville—Thomas Childress Osborn.....1872
Tuscaloosa—George Ernest Kumpe.....1873
Selma—George Augustus Ketchum.....1874
Montgomery—Job Sobieski Weatherly.....1875

Mobile—John Jefferson Dement.....1876
Birmingham—Edward Davies McDaniel.....1877
Eufaula—Peter Bryce.....1878
Selma—Robert Dickens Webb.....1879
Huntsville—Edmund Pendleton Gaines.....1880
Montgomery—William Henry Anderson.....1881
Mobile—John Brown Gaston.....1882
Birmingham—Clifford Daniel Parke.....1883
Selma—Mortimer Harvey Jordan.....1884
Greenville—Benjamin Hogan Riggs.....1885
Anniston—Francis Marion Peterson.....1886
Tuscaloosa—Samuel Dibble Seelye.....1887
Montgomery—Edward Henry Sholl.....1888
Mobile—Milton Columbus Baldridge.....1889
Birmingham—Charles Higgs Franklin.....1890

THE SCHEDULE OF THE ANNUAL ORATORS.

Gaston, John Brown—Mobile Session.....1869
Ketchum, George Augustus—Montgomery session.....1870
Anderson, William Henry—Mobile session.....1871
Weatherly, Job Sobieski—Montgomery session.....1872
Jordan, Mortimer Harvey—Tuscaloosa session.....1873
Seelye, Samuel Dibble—Selma session.....1874
Ketchum, George Augustus—Montgomery session.....1875
Michel, Richard Fraser—Mobile session.....1876
Fournier, Edmund Henry—Birmingham session.....1877
Riggs, Benjamin Hogan—Eufaula session.....1878
Mitchell, William Augustus—Selma session.....1879
Baker, Paul DeLacy—Huntsville session.....1880
Baldridge, Milton Columbus—Montgomery session.....1881
Bryce, Peter—Mobile session.....1882
Sholl, Edward Henry—Birmingham session.....1883
Sanders, William Henry—Selma session.....1884
Searcy, James Thomas, Greenville session.....1885
No oration delivered—Anniston session.....1886
Huger, Richard Proctor—Tuscaloosa session.....1887
Baldwin, Benjamin James—Montgomery session.....1888
Coleman, Ruffin—Mobile session.....1889
Inge, William Tutwiler—Birmingham session.....1890

THE OBITUARY RECORD.

BARBOUR COUNTY—James Lawrence Baker, M. D., mc Atlanta 88, cb Russell 87, Eufaula, thrown from his buggy; James Wesley Clarke, M. D., Kentucky s of m 78, cb 81, Eufaula; Egbert Burr Johnston, M. D., mc Alabama 83, cb 84, Eufaula.

CALHOUN COUNTY—John Washington Pearce, M. D., mc Georgia 52, cb 85, Oxford, of hepatitis.

CLARKE COUNTY—Burwell Middleton Allen, M. D., mc univ Louisiana 59, cb 84, Marvin, of congestion; George Washington Files, M. D., mc univ Louisiana 59, cb 84, Gosport, of paralysis; William Lemuel Findley, M. D., Kentucky s of m 87, cb 87, Thomasville, of typho-malarial fever.

CULLMAN COUNTY—Robert Thomas Searcy, M. D., mc univ Nashville 53, cb 86, January 27, 1889.

DEKALB COUNTY—George Washington Lane, non-graduate, Pea Ridge.

ELMORE COUNTY—Meriwether Gaines Moore, M. D., mc univ Pennsylvania 46, cb 84, Wetumpka, of heart disease.

ETOWAH COUNTY—William Henry Garlington, M. D., mc South Carolina 56, cb 78, Walnut Grove, of Bright's disease.

JEFFERSON COUNTY—William Locke Chew, M. D., mc univ Louisiana 86, cb 86, Birmingham, Dec. 4, 1889, of gunshot wound; Henry Stallworth Duncan, M. D., mc univ Nashville 80, cb Morgan 82, Birmingham, Sept. 1889.

LOWNDES COUNTY—John Patrick Mushat, M. D., South Carolina 55, cb 78, Hayneville.

MACON COUNTY—Benjamin Franklin Johnson, M. D., mc South Carolina 43, cb 79, Notasulga, January 5, 1890; Frederick William Williams, M. D., mc univ Pennsylvania 52, cb 79, Tuskegee.

MADISON COUNTY—George D. Norris, M. D., mc univ Maryland 31, February 12, of intussusception.

MARSHALL COUNTY—Francis Marion Nixon, M. D., cb 78, Guntersville, Sept. 24, 89, of typhoid fever; Russell Sparks, M. D., cb 87; Red Apple, April 89, thrown from his horse; Charles H. Stewart, M. D., March 25, 1890.

MOBILE COUNTY—William Gibbs Beatty, M. D., mc Atlanta 69, cb 78, Whistler; William Crawford Hicklin, M. D., mc South Carolina 38, cb 78, Mobile; Augustus Jordan Reese, M. D., mc univ Louisiana 49, cb 78, Mobile, Sept. 14, 1889, of Bright's disease.

PERRY COUNTY—Francis Asbury Bates, M. D., mc univ Louisiana 43, cb 78, Marion; Robert Foster, M. D., mc South Carolina 47, cb 78, Marion.

PICKENS COUNTY—John Walter McLeod, M. D., mc univ Louisiana 82, cb 84, Bethany.

RANDOLPH COUNTY—Cephus Blair Taylor, M. D., mc Graffenburg 49, cb 79, Rock Mills, February 7, 1890, of morphine poisoning.

SHELBY COUNTY—George Andrew Weldon, M. D., mc Atlanta 82, cb 82, Weldon.

SUMTER COUNTY—James Myers Godfrey, M. D., mc univ Pennsylvania 55, cb 77, Sumterville, of chronic Bright's disease.

TALLADEGA COUNTY—Samuel Manderville McAlpine, M. D., mc Jefferson 57, cb 86, Alpine, of neurasthenia, July, 1889.

THE APPENDIX

OF

MEDICAL AND SANITARY DISSERTATIONS AND REPORTS.

MOBILE COUNTY—William Gibbs Beatty, M. D., mc Atlanta 69, cb 78, Whistler; William Crawford Hicklin, M. D., mc South Carolina 38, cb 78, Mobile; Augustus Jordan Reese, M. D., mc univ Louisiana 49, cb 78, Mobile, Sept. 14, 1889, of Bright's disease.

PERRY COUNTY—Francis Asbury Bates, M. D., mc univ Louisiana 43, cb 78, Marion; Robert Foster, M. D., mc South Carolina 47, cb 78, Marion.

PICKENS COUNTY—John Walter McLeod, M. D., mc univ Louisiana 82, cb 84, Bethany.

RANDOLPH COUNTY—Cephus Blair Taylor, M. D., mc Graffenburg 49, cb 79, Rock Mills, February 7, 1890, of morphine poisoning.

SHELBY COUNTY—George Andrew Weldon, M. D., mc Atlanta 82, cb 82, Weldon.

SUMTER COUNTY—James Myers Godfrey, M. D., mc univ Pennsylvania 55, cb 77, Sumterville, of chronic Bright's disease.

TALLADEGA COUNTY—Samuel Manderville McAlpine, M. D., mc Jefferson 57, cb 86, Alpine, of neurasthenia, July, 1889.

THE APPENDIX

OF

MEDICAL AND SANITARY DISSERTATIONS AND REPORTS.

THE ANNUAL ORATION.

BY HENRY TUTWILER INGE, M. D., OF MOBILE,

Junior Counsellor of the Medical Association of the State of Alabama.

Mr. President, Fellows of the State Medical Association, Ladies and Gentlemen:

I am not unmindful of the distinguished honor conferred upon me in being selected to address you at this hour.

"I have neither wit, words, nor worth, action or utterance, or the power of speech to stir men's blood."

At the Ninth International Congress, Dr. Reyher, of Russia, was called on to speak. He came forward and said: "If I speak to you in Russian, you not understand me; if I speak to you in French, you not understand me; if I speak to you in English, I not understand myself."

I stand before you to-night in the same dilemma. Should I speak to you of medicine, our lay brethren would know little, and care less, whereas, should I try to soar on oratorical wings to flowery heights of eloquence, I should most signally fail. But, I am reminded by the large and intelligent audience before me this evening, that I am in the city of Birmingham, the pride of the whole South, as well as of Alabama; the city whose fame has gone forth on every breeze, and whose devotion to the majesty of law has furnished an example worthy of the imitation of her lovely and orderly sister by the Mexican Gulf.

I have not been blessed with as much curiosity as was the distinguished ruler of Sheba, who visited the regal Isrealite, yet, I can truly say of this great city: "The half has not been told." Resting on a basis of carboniferous solidity, with gigantic iron mountains girdling her waist, and her numerous

furnaces throwing the lurid glare of their nocturnal industries against a bending sky, Birmingham may well be proud of her past, delighted with her present, and hopeful of her future. No past successes can limit her growth; no present achievements satisfy her ambition; and no future conquests exhaust her possibilities.

But, refraining from further prosecution of this most fruitful and delightful theme, I turn to the humble performance of the duty assigned me, having selected as a basis for a few moments plain talk this evening, "The Physican as a Factor in the Progress of the State in which he lives."

The work in which we are engaged is the preservation of human life, and, as life is, to all, the greatest earthly boon, they who promote its highest interests and have devoted to it their deepest attention and study, should be numbered among the greatest benefactors of mankind. I affirm with confidence, that in human affairs there is no profession nobler than ours, in whose interest we assemble this evening. None which has grown more reverend with age, none which has engaged nobler intellects, none which has stronger hold on human confidence, and none which promises more for the full and perfect developement of its earnest followers and the blessing of the suffering race of men. It is a profession which had its origin in the dim and shadowy outlines of Indian and Egyptian art, and it has passed on from century to century gathering strength in its march. Naturally such a large body of men must exert a powerful influence, either for good or for evil, to advance or retard the growth of country or state. In the earlier times, physicians gave medicine for relief, and then their work was done. At the present day, however, our benevolent profession reaches far out into the great questions that agitate the world. The International Congress which meets every three years, is a reunion of scientific physicians of every nation, who gather from the ends of the earth to announce new discoveries, advance new theories, to prove the efficacy of a new drug or the inutility of an old one. By this activity in the field of science, systems and doctrines gray with the

growth of ages, are, in a few days, swept away like cobwebs, although crystalized by time, and fortified by the genius and labors of a hundred generat ions. What the International Medical Congress accomplishes in the progress of the world at large, the state association does for the individual state. Some, however, are more advanced in their organization, and in their methods than are others. States that were old when Alabama was a forest envy our professional organization, and yet fail to reach it. Whether it is because we are more united in our determination, or because we are more persevering I do not know, but the fact remains that on many important points for the good of the people and the profession, we are in advance of them all. We demand that none but educated, competent physicians shall be permitted to practice within her borders. The examination required by the county society is rigid enough to exclude all quacks, and only such as are conscious of being such ever refuse to submit to it. The people at large do not realize what an important measure this is. They regard their immunity from these destroyers as a matter of course, very much as they regard the fact that the streets are lighted at night, and that the policemen protect life and property while they sleep. In this day, when thousands of young doctors are turned loose upon an unoffending world, and diplomas can be bought for $10, any discerning person can readily see the crying need of systematic and rigid examination of all applicants for license to practice medicine. Any one of you might in an emergency have to call in a strange physician, and if he has a license given by a committee of the well known members of the profession in your city, you are not afraid to rely upon him in this hour of doubt and trouble. In the last seven years twenty-five applicants for license have been rejected from your city, and not six months ago I heard a man say that more of this sort would come to our state but that they feared the examination. We guard our gateways. In striking contrast in this particular is the State of Louisiana. The City of New Orleans has more quacks and venders than any city south of the Ohio river. I can no better prove this

strong assertion than by quoting the Coroner's report for the last year.

QUACK DOCTORS.

These individuals are a source of great evil and unpardonable mischief to an honest but credulous public. If in most cases they do not kill directly, they are none the less the cause of death of hundreds of individuals, who, thinking them to be physicians merely because they have placed on their door a sign of "Doctor," go to them, and either die from want of proper attention, or when they find out their mistake they go to a physician, and, alas! find out, that it is too late, there is no salvation for them, they are doomed to a certain death, and often at a near future. It is an injustice both to the law-abiding and tax-paying citizen, to his family, as also to the honest and studious physician who has spent thousands of dollars and years of his life in obtaining a diploma, that they should not be protected by law, against a set of unscrupulous charlatans, who ply their avocation at the expense of human lives under the most unpardonable false colors. On the 25th April, 1882, I was summoned to No. 262½ Bayou Road, to view a corpse, for which physicians had refused to give a death certificate. Upon inquiring, I found that the deceased had come to his death from superpurgation, the result of some pills given him by a quack by the name of Dr. Petersen (son) or (san), that Drs. Formento, Courrege and ———, had seen the man, but owing to the fact his death was the result of the internal administration by a quack of drugs unknown to them, the effects of which they had been unable to check, they had referred his death to the coroner for the purpose of investigation. A very careful autopsy was made by Dr. Archinard, my deputy, and myself, in presence of a jury duly impanneled, and the cause of death was found to be "an irritation of the alimentary tract (the stomach and intestines), the mucous membrane of which was softened down, conjested and grayish. This irritation caused the disorder which resulted in general debility and death. The brain and other organs were normal." The case was placed before the grand jury, who, after examin-

ing the law on the subject, found that it was so loose and imperfect that it was impossible to bring the impostor to task.

Another case shows how crime may be concealed and murders shielded, if our honorable legislators do not look into the law governing the practice of medicine in this state. It is the following certificate given by an unknown villain who took care to escape, probably before the death of his victim:

NEW ORLEANS, April 28th, 1882.

I the undersigned do hereby certify that Geo. Herman Bakermeyer, age nine weeks, son of Herman Bakermeyer, and ———— Malgrit Elizabeth. Died April 28th, 1882, at 2 o'clock P. M. of Oriental Deases.

JOS. ALBERT.
C. C.
Profeseur Oriental,
per G. GASSANOVA,
sec.

The above document I have copied word for word, from the original in my possession. It is endorsed by the board of health, where it was presented for registration: "This certificate should be signed by a known physician." Below this, it is again endorsed by my assistant, Dr. Archinard, who had investigated the case, "This certificate is dated one day previous to death, the child having died April 29th, 1882." The Doctor investigated the case and found that the child had died from a natural cause (diarrhœa), and I have every reason to conclude would have been saved, if attended to by a physician.

Another case is that of a young girl sixteen years of age, who died from asphyxia by pressure on the wind pipe. A quack by the name of Antonio Cattrich, who can neither read, write nor speak French, English, German, Italian or Spanish, gave the following certificate of death, which was written and signed in his name by a neighbor who understood him to dictate as follows:

NLLE. ORLEANS 14 SEPTEMBRE 1883.

Je soussigne declare que Melle. Caterine Cepher et mort de Scrophule a lage de 16 ans seize morte le 13 Septembre a 11 heures du soir rue derbignie Entre Union et Bagatelle.

DR. A. CATRICH.

The authography and style of the above documents are such that a ten year old child would not be guilty of. When we think of the responsibility of the situation; when we see an unscrupulous quack tampering with the lives of our citizens, we wonder how the laws of a community like ours could ever tolerate such an act. The man did not kill the girl with his medicine, for I examined the so-called herb medicine, which amounted to so much water—molasses and water—and sugar and water, but by his villainy he imposed upon credulous, honest and poor people, fleeced them of what little money they had, and prevented them by his seductive but untruthful promises, from applying to the hospital, where they would have had an enlightened and proper treatment. The case was by me reported to the board of health, and by them, through their attorney, the man was brought before a recorder and charged with practicing medicine without a diploma. He was discharged under the plea, that he was not a physician, but a herb doctor, and therefore the law did not apply in his case. It does not behoove me, your Excellency, to criticise either the action of the honorable recorder or that of our honorable legislature in passing such a law, but it is my duty to call the attention of your Excellency to the fact, that unless a proper law be passed, the lives of our citizens are endangered by a set of unscrupulous quacks who impose upon them.

There seems to be a peculiar fascination for tampering with human life, and many fancy they can cure diseases by their strength of mind. What do you think of a physician who aspired to join hands with Jenner, Cooper, Harvey, and others of old, who would sit in council with Loomis, Flint, Ashurst, Agnew, and Gross, and spell God with a little "g?" Yet, I am ashamed to say that such a one did apply for license in this state.

In the lower part of Mobile county lives an old quack, who knows little of medicine and less of surgery. He was called to set a dislocated shoulder. He prepared a large fly blister and applied it. The patient writhed and squirmed for a day and night, and finally sent to Mobile for a physician. On his

arrival the old doctor assured him that, "had the flies been fresh they would inevitably have drawn it back in place." I call upon the legislature of our state to see that the laws on examination are carried out. The laws are good, but their practical administration is faulty. The state made the law, and, because it was put in a wrong place in the Code, the head of justice has recently declared it null and void. The plague of locusts was not worse than will be the swarm of quacks and charlatans that will swoop down upon us if the people of the state do not co-operate with the State Medical Association in its efforts to keep them out. Our state has a law which forbids the sale of poisonous drugs. It is violated every day by the enormous sale of gallons of patent medicines, the chief ingredient of most of which is opium, in different forms. Every one knows that an opiate will relieve pain temporarily, but every one does not know that more children have been killed by the administration of soothing syrup than have died with yellow fever in the last ten years. In order to realize the enormous proportion of the sale of patent nostrums go and take a cursory view of any drug store in your city, or in any city, and see the vast array of proprietary and empirical compounds, S. S. S., B. B. B., P. P. P., and other alluring alliterative titles, which catch the public ear, and, simultaneously, the public dollar. Many people contend that the secret of our condemnation of these things is jealousy. Our profession, however, is an unselfish one, and the monetary consideration small, for you all know a rich doctor is an unheard of thing. The truth is, we are trying to bring the medical science as near perfection as possible, and are willing to accept medical truth and knowledge wherever found. We condemn no discovery unadvisedly, but we do claim that competent, earnest medical men, with the sole object of ascertaining the truth for the benefit of science eargerly test each so-called discovery and accept or reject it, as it is good or worthless. Therefore, when new remedies are announced, if they possess any ascertained merit, no matter how great or small, whether from the animal, the vegetable, or the mineral kingdom, we single them out, and

incorporate them with the great mass to swell the records of rational medicine. Hence, you can readily see that these extraordinary discoveries of remedies that cure every disease under Heaven, are glaring frauds, and reach the public only by systematic and glaring advertisement. It is a curious enigma, how a man, wise in all else, becomes a victim to shallow quackery or sophistical pretension. More than one gullible lawyer has put a bag of assafoetida around his child's neck to keep off disease. More than one person has tied a rope around his waist to breake up chills, and more than one man has put a copper wire around his neck to prevent neuralgia. Many clergymen certify to the wonderful effects of these wonderful cure all medicines, and actually to the cleansing properties of certain toilet soaps. Willingness to give certificates is an almost universal weakness of mankind. The idea of appearing before the public so flatters many people that they are willing to allow their names and diseases to be paraded in newspapers and almanacs. One of the greatest thorns in the flesh we medical men have to endure is the flaunting in our faces certificates from lawyers, clergymen, and other well known persons, recommending all kinds of patent nostrums. Every quack knows the value of a clergyman's name appended to his compound; therefore they make strenuous efforts to obtain it. You know, and every sensible person knows, that such certificates are not worthy of credence, and the minister of God who lends his name to assist sharpers to prey on the afflicted, is a dupe.

The supreme court of Georgia has decided that if a man takes a patent medicine as directed, and it does not cure the trouble for which he is taking it, or, if it injures him in any way, the party who makes it is liable for damages.

I quote the following from one of our best medical journals of recent date: "The manufacture and sale of Electric belts, brushes, shoes, pads, etc., has reached such proportions in England, that an effort is being made in the interest of an ignorant and deluded public to restrict, if it is possible, the traffic in such fraudulent appliances. A man who sold an

electropathic belt, warranted to cure sciatica, lumbago, Bright's disease and a host of other ailments, has recently been arrested and fined for obtaining money under false pretenses." When our legislators realize the importance of preventing by law, the sale of all patent nostrums and appliances, our people will live so long they will dry up and blow away, and we will not need to invite immigration.

One of the problems now agitating the public mind, and that of the medical profession, is the disposition of our dead, and it is one that will soon require legislation. The people are at last awakening from their lethargy and beginning to realize the fact that the present method of interring the dead is a constant menace to the living. The reduction of the dead body, by fire, to ashes, was a very wide spread custom of antiquity. The early Greeks, Romans, Slavs, Celts, and Germans burned their dead. It was christianity that gradually suppressed the usage on grounds of kindly feeling for the dead, and religious reasons connected with belief in the resurrection of the dead. We contend that these prejudices are founded on misapprehension, and consider that the question is wholly a sanitary one. The damage to the health of those who live near cemeteries from the exhalation of noxious gases and poisoning of water, is an acknowledged fact, and, in some cases, quite inevitable. By burning, the body is reduced to ashes and more quickly to its consistent elements, without disrespect to the dead or injury to the living.

In some places, such as New Orleans, the soil will not permit of interment, so the dead are placed in vaults above ground. If one could witness the different degrees of decomposition taking place, until the loved one could no longer recognize the loved one, he would soon conclude that cremation is the most respectful mode of burial. That cremation is gaining ground is clearly shown by the fact there are now thirty-nine crematories in the world; ten of which are in the United States. Dr. Samuel Gross, one of the most distinguished surgeons that ever lived in America, left the strongest evidence that he was an advocate of cremation, by desiring at his death that his body should be burned.

The physician is a factor in the progress of his state by the assistance he renders in a medico-legal way, by the elucidation of crime. Many a wretch has been sent to just punishment of his crime by the expert testimony of physicians, and in most cases they are exposed to severe criticism, not because they do not understand the case in hand, but because it is difficult for them to explain a case without the use of medical terms. One of us might meet another, and say, "I have hurt my leg, and am undecided whether the long tendon of the plantaris has slipped from between the gastrocnemius and soleus, or has been detached from the posterior tuberosity of the os calcis." You would think he would never walk again, but his comrade in medicine would know he had only strained a leader in his leg.

We should endeavor to make our meaning as plain as possible, so that the learned attorney who, on such occasions, knows more medicine than the combined medical profession, can not hold our testimony up to ridicule. Recently, a physician testified that a man had died from lymphatmitis, when it was supposed that he had been foully dealt with. Immediately the jury wanted to hold the accused for wilful murder.

Thousands of crimes are proved yearly by evidence that a skilled physician alone can give. On the contrary, who knows how many poor souls annually pay the penalty for a crime not committed by them, for lack of proper medical testimony. It seems to me then, that, in view of the great service rendered the State in this particular, she should be willing and ready to give her physicians all legislation necessary to protect them in the practice of their chosen profession.

In conclusion, ladies and gentlemen, let me urge you to uphold the body of men you see before you, in their earnest endeavors to lighten the burden of disease, and suffering, which afflicts our fallen race. By the co-operation of the people at large, to suppress the sale of patent nostrums, to keep out of our borders quacks, and to procure proper sanitation, our work will be greatly lightened, since it is the successful prevention of disease and suffering, rather than successful medication and

relief, which is the acme of success. You know the Chinese pay their physicians only so long as they are well, and I hope some day to have such a state of things exist here, and then, perhaps, we poor abused doctors will get rich.

HEADACHE AND NEURALGIA THE RESULT OF REFRACTIVE ERRORS.

BY BENJAMIN JAMES BALDWIN, M. D., OF MONTGOMERY,

Junior Counsellor and member of the Board of Censors and Committee of Public Health of the Medical Association of the State of Alabama.

DISCUSSED BY

EMMET LEE JONES, M. D., of Florence.
SAMUEL LEONIDAS LEDBETTER, M. D., of Birmingham.
JOHN EDWARD PURDON, M. D., of Cullman.
LEWIS GRIFFIN WOODSON, M. D., of Birmingham.

Lord Bacon was a profound philosopher, a statesman of rare wisdom, and he may have been correct when, in the sixteenth century, he sneeringly said, "these medical sciences stand at a stay and have done for many years." How far from true such a statement would be to-day! In lifting the veil from the medical panorama we can now scarcely find in this picture a single trace of Bacon's day. Physiology, pathology and the microscope have laid old fancies away and brought to light many new and incontestable facts.

Who can be found after reviewing the "increase in our knowledge of nervous diseases and the elucidation of many problems connected therewith in clinical, pathological and histological respects, and the localization of nervous functions," or the enlarged field opened by the wonderful improvement in the diagnosis and treatment of abdominal disorders, or the accuracy with which the cavities of the body that were once sealed and impenetrable as far as the eye was concerned, and now illuminated, explored and treated, or the inconceivable develop-

ments in histology and bacteriology would say that "these medical sciences stand at a stay?" True it is, that much that is now called progress, may in the course of time be proved to have been spurious, but much must remain as permanent advances. I think that you will grant that opthalmology has kept well abreast in this progressive march with its correlative branches.

I have not the time, in the few minutes allotted me in this essay, to give just praise to those pioneers who rescued opthalmology from the hands of charlatans, and wiping away cobwebs of obscurity brought the science from a state of incorrectness, inaccuracy and darkness into an exact, clear, demonstrable and beautiful science, but I do want to give my hearty endorsement to a number of younger workers who deserve great praise for directing the attention of the profession to the subject of eye strain as a factor in the causation of headache and neuralgia. I do not mean to class myself as an unconditional follower of Dr. Stevens. I care not to go into the battle that has lately been raging between Dr. Stevens and the New York Neurological Society on the subject of peripheral irritation in the eye as a cause of corea and epilepsy. In fact, I care not to go into the subject so far as it relates to muscular insufficiencies, but I prefer to confine myself principally along the line of my observations, which deal mostly with internal eye strain in connection with anomalies of refraction. It may be that Dr. Stevens claims too much for his treatment of corea and epilepsy. I rather think he does, but that he deserves the thanks of the profession, and a host of headache sufferers—I do not see how any fair-minded investigator can deny—for he has by his persistence and ingenuity in his special line of work directed the attention of the profession to a class of important eye troubles which had hitherto been very generally overlooked or incorrectly diagnosed.

Ambrose L. Ranney has also contributed much valuable information on this subject, and his essay on "Eye Strain as a cause of Headache and Neuralgia," published in the New York Medical Record, June 22nd, 1889, is an important addi-

tion to the literature of this much discussed topic. Good work has also been done by Culver, Jackson, Norton, Landolt and Fulton.

There is no question in my mind, and that is based on what I have seen in my practice, that many forms of intractable headache and neuralgia are the result of eye strain, due to a faulty construction of the eye ball, and I propose later on to recite a few cases, the relief in some of which by the correction in the errors of refraction, has been almost magical. I know, that as general practitioners, you do not keep posted on the eye, and that you desire a rehearsal of a few of the essential points in its anatomy and physiology. In the normally shaped eye, rays of light pass through the cornea, aqueous humor, pupil, crystalline lens and vitreous humor and come to a focus on the retina. Rays of light from a point beyond twenty feet do this without any effort on the part of the eye, but when the object approaches the eye an effort is required to make the image distinct. This effort is called accommodation. By accommodation is meant the "power which the eye possesses of altering the condition of its refractive media, so as to form upon the retina images of near objects, the rays of light from which are divergent, equally distinct as images of more distant ones, the rays of light from which are parallel. The power of accommodation depends upon the elasticity of the crystalline lens, the curvature of which can be increased to a considerable extent. The alteration of curvature is brought about by the action of a ring of inorganic muscular fibres, known as the ciliary muscle. The lens is supposed to be held in a flattened condition by tension of its suspensory ligament so long as the eye is adjusted for the distance, and upon accommodation for a near point the ligament is relaxed by contraction of the ciliary muscle, and the curvature of the lens increased by virtue of its own elasticity. Another theory is that the ciliary muscle compresses the lens.

Accommodation is accompanied by contraction of the pupil and convergence of the optic axes. I wish to direct your attention especially to the contractions of the ciliary muscle, as

here is the point from which the irritation principally arises. We know that high muscular tension continued for any length of time in any part or system of muscles will result in fatigue, worry, and even pain. Why, therefore, is it not to be expected that in conditions of the eye where prolonged contractions of the ciliary and internal recti muscles exist there will not follow headache, dimness of vision, muscular weariness and confusion? I have, in my own experiments, produced headache, dimness of vision and vertigo in fifty seconds, by directing patients to look intently at the finger placed two and a half inches in front of the nose. This is a simple but exaggerated way in which to demonstrate the effects of muscular tension on the nervous system. There are three conditions of the eye in which we have these muscular contractions, viz: hypermetropia, myopia and astigmatism.

In the eye of the hypermetrope the refractive power is too low, and parallel rays of light entering such an eye would be brought to a focus behind the retina. An effort of the accommodation is therefore required to focus such rays at a nearer point and give distinct vision. How much greater is the strain upon the ciliary muscle when near objects are looked at. In the hypermetropic eye there is never any rest for the ciliary muscle as long as the lids are open, and, consequently, the eye never has the opportunity as does the normal eye of periods of rest in viewing distant objects and regaining its strength after long continued close work. Its ciliary muscle is therefore always in a condition of strain which, after prolonged worry and over-work, will undoubtedly lead to headache, neuralgia, mental confusion, dizziness, and even nausea and vomiting. By correcting the error of refraction the muscles are relieved of this unnatural tension and contraction, and the eye is enabled to do its work with ease and comfort.

MYOPIA.

In myopia the condition is reversed. On account of antero-posterior axis being too long, parallel rays of light are brought to a focus in front of the retina. The myopic eye is always weak and sensitive, and while it does not suffer through its

ciliary muscle, yet the myope cannot bear much close work. There is generally some congestion of the retina which gives rise to more or less photophobia and sensitiveness to use. In high degrees of myopia (to which these remarks principally refer) the print must be brought very near the eye, and this necessitates a very great convergence of the optic axes in order to retain binocular vision. This results in fatigue of the internal recti muscles, which leads to weariness, headache and other nervous symptoms.

ASTIGMATISM.

Astigmatism is an anomalous condition of the eye in which there is a lack of symmetry in the curvature of the cornea and crystalline lens. The eye, therefore, does not refract light equally in its various meridians. On account of the deviated course of rays of light after passing through an irregularly curved cornea, the ciliary muscle must act irregularly in its different meridians, thus quickly leading to muscular fatigue. Astigmatism will more speedily and surely lead to nervous disturbances than any other errors of refraction, and requires prompter treatment as the eye is less able to compensate for this than any other error. Properly adjusted glasses are the only remedy in all these cases. Errors of refraction in the great majority of cases, when corrected by the proper adjustment of lenses, are very surely relieved, and I have made this brief reference to hypermetropia, myopia and astigmatism, simply as an aid to the general practitioner to understand the mechanism of these conditions. It is generally regarded that specialists see everything through their own glasses, and for this reason it is believed they are frequent riders of hobbies. I hope, however, to prove to you that eye strain is an exceedingly frequent cause of headache, neuralgia, insomnia and other nervous disturbances. It must be remembered and kept well to the front in your mind that the eye is very bountifully supplied with nerves from the cranial and sympathetic system. There is no other organ which is so intimately connected with nervous centres, and none which has so many cranial nerves distributed to it, and nearly all these nerves in strong relation-

ship in their origin. The ever active muscle, the ciliary, is supplied by the third nerve. This nerve arises from a section of gray matter under the acqueduct of sylvius, and the nucleus of the fourth nerve is a continuation of this tract of gray matter, while both are united with the sixth pair, by a set of posterior horizontal fibres, and there is a strong probability of the relation between the fifth and optic nerves. We know that increased action of the centres of the fifth alter the sensibility of those for vision, and Hutchison has reported a case in which photophobia was produced by inflammation of the cornea in a blind eye. In reviewing the connection and association in origin, the intimacy in function and proximity along their course of distribution, how is it possible not to conclude that an interruption or annoyance to the function of one of these eye nerves may not compromise more or less the action of them all, and finally lead to serious nervous complications.

Dr. Jackson, who has done good work in this direction, says that "headaches arise from the requiring of the muscles accessory to vision, or of the nerve centres and tracts connected with them, more than these parts of the muscular or nervous system are capable of doing. Subjection to such requirement is the essence of eye strain, and strain is the excessive exertion of the ocular muscles and the efferent nerve paths that lead to them." Hilton says that if a patient complains of pain on the surface of the body it must be expressed by the nerve which resides there. No other structure can express it. Somewhere in the course of its distribution the precise cause of the pain expressed in the surface must be situated.

Dr. Jackson very pertinently asks if it is any unwarrantable supposition that if the use of one nerve path disorders the nutrition of another, such disorder must occur where paths are closely contiguous or actually run together.

It has been urged by some highly respected authorities that the importance of eye strain as a factor in the production of headache and neuralgia has been greatly overrated. Let me place in the other side of the scale some evidence to sustain the position of this essay:

Noyes says: "Not a small percentage of headaches originate in disorders of the ocular muscles."

Bull says: "Many cases of obstinate headaches which have resisted all treatment originate in disorders of the ocular muscles, and disappear only when these disorders are corrected."

Ranney says: "Sick headaches are of a reflex character to a large extent, and are due primarily in almost every case to some optical defect."

Jackson says: "Headache due to eye strain is very common."

Culver believes many cases of ocular headache go unrecognized, and he thinks the subject worthy of discussion.

Stephens says: "Difficulties attending the function of accommodating and adjusting the eyes in the act of vision, or irritations arising from the nerves involved in these processes, are among the most prolific sources of nervous disturbances, and more frequently than any other conditions constitute a neuropathic tendency."

Landolt says: "It is not rare to see cephalalgia due to eye strain mistaken for neuralgia dependent upon some affection of the nervous system and treated accordingly, without any success, and to the detriment of the general health.

Bickerton reports two hundred and seventy out of one thousand cases of headache in which refractive errors were found.

Galezowski, Weir-Mitchell and Charcot, have also expressed positive belief in the existence of ocular headache.

In my own practice I have seen cases with constant headaches and neuralgia with occasional spells of blindness, accompanied by dizziness, vertigos and nausea following the slighest use of the eye, almost instantaneously relieved by the correction of the refractive error. I have, in my mind, the wife of a distinguished physician of Selma, who had been the subject of unremitting headache for eighteen years. When she consulted me she said she did not know what it was to be free from headache. She also said that sometimes her husband would ask her to go to the library and get him a certain book, and just the simple reading of the titles of books for a few

seconds would lead to the most intense headache, accompanied by nausea and vertigo. She was the subject of quite a high degree of hypermetropia, and since the correction of this error by the constant use of glasses, she is enabled to do an unlimited amount of night reading, and her headaches have entirely disappeared.

I have also had a number of cases of serious headaches in school children, and women who are compelled to sew for a living. When the use of the eyes in school children is followed by headaches and other nervous symptoms, it is highly important for their eyes to be examined, as very serious results may follow neglect under these circumstances.

I do not wish to convey the idea that it is my belief that all cases of headache and neuralgia are due to errors of refraction—far from it—but I do say that these refractive troubles play a most important part in their production, and it is well to eliminate the eye as a factor in the beginning of an investigation as to the cause of headache. It not infrequently comes to the notice of specialists, where prolonged and useless medication has failed to cure headaches, which are quickly relieved by the proper adjustment of glasses.

Ambrose L. Ranney puts it in this style: "The profession often speak with assurance respecting the clinical significance of some slight draught of air; look for some trivial excess or error of diet as an important factor; condemn hastily and on general principles some acquired habit which has been tolerated by the patient for years, without apparent injury shift the responsibility from themselves upon that much abused organ, the liver; and in countless ways strike about with their club of unscientific deduction, hoping to kill a disease whose cause and nature they may not have carefully investigated.

A bad tooth, impacted wax in the ears, eyes with defective refraction, and imperfectly balanced muscles, an obstruction to the passage of air through one or both of the nasal cavities, some hidden rectal irritation, and many forms of pelvic disease too often remain unrecognized in many patients as factors in causing headache and neuralgia, while learned disserta-

tions and useless medication are offered to the patient as a means of relief.

I have selected a few cases from my book who have given consent to the use of their full names, and will offer a true copy of a letter from Mrs. Furniss, wife of the distinguished Dr. J. P. Furniss, of Selma:

CASE 1.

"SELMA, January 7th, 1890.

Dear Doctor:

"During the whole of my school life I was conscious of a defect in my vision. I had to close one eye to study. I felt dizzy and nauseated after using my eyes for any length of time. In the fall of 1875 I went to New York to consult Dr. Agnew. He fitted glasses and told me never to leave them off. I did not follow his advice, which I now know would have saved me years of suffering. In 1877 I began to have almost constant headaches which I thought neuralgia. When I used my eyes the pain was intense, and I was nauseated. If I tried to find a book or anything which I happened to misplace, I became so nauseated as to have to lie down. This condition continued to grow worse and worse up to the time I consulted you. Since wearing your glasses, now nearly two years, I am relieved of the headache and nausea. Can read for hours without inconvenience, and am in good health and spirits. Before using them I felt that my health and happiness was becoming seriously affected.

I shall always feel grateful to you for the relief and comfort which your glasses have afforded me.

With best wishes, in which the Dr. joins me, I am,

Very sincerely,

(Signed) E. D. FURNISS."

CASE 2.—Miss Nora Lary, daughter of Mr. Lary, one of Montgomery's active bankers, was sent to me by my friend Dr. Blue. She had suffered for some time with constant headaches, accompanied by spells of dizziness and nausea, and had been compelled to stop school. Dr. Blue had treated her headaches for some time, and finally suggested that she consult me about her eyes. Upon examination, under the influence of atropia, I found a latent hypermetropia of one-eighteenth. I prescribed a plus twenty-four lens for constant use. Her headaches disappeared in a few days after the glasses were put on. She has returned to school, and is enabled to do an ordinary school work.

CASE 3.—Miss Octavia Rush, of Selma, Alabama, had been subject to continuous headaches for several years. I applied atropia and found a slight degree of hypermetropia, only a thirty-sixth (36th.) Though the error of refraction was small in this case, yet the application of a plus 36 lens has entirely relieved her, and she writes me that she feels like she had a pair of new eyes.

CASE 4.—Mr. Wm. Hill, of Montgomery, for several months had been having recurrent attacks of conjunctivites, followed by headaches and other feelings of discomfort about the head after using the eyes. Under atropia a hypermetropic astigmatism was found, the correction of which has prevented any return of the conjunctivites, and he can read with ease and comfort.

CASE 5.—Mrs. Richard Weightman, of New Orleans, was unable to do the slighest reading at night and very little in the day without severe headaches. After instilling atropia, an examination disclosed hypermetropia in one eye and hypermetropic astigmatism in the other. The application of the proper glasses has relieved her headaches following use of the eyes, and she is enabled to do the usual amount of reading at night without any discomfort.

CASE 6.—Miss Marie Price, of Mobile, had been compelled to stop school on account of constant and severe headaches, with occasional spells of blindness. Atropia disclosed a high degree of hypermetropic astigmatism. Glasses were prescribed for constant wear. Her headaches have been relieved, and her eyes do not cause her much trouble.

CASE 7.—Miss Maggie O'Brien, of Birmingham, a young lady of gifted literary taste and talent, was unable to read any length of time without suffering from headache afterwards. Examination of her eyes disclosed a hypermetropic astigmatism, the correction of which enables her to pursue her literary course without ill effects.

CASE 8.—John Burnett, Jr., of Evergreen, Alabama, was the subject of a very high degree of hypermetropia, with a decided tendency to cross. He could not pursue his school

duties. The constant use of glasses has corrected the squint, and he has an unlimited capacity to use them.

CASE 9.—Hardee Chambliss, of Selma, had the highest degree of hypermetropia I have ever seen (one-sixth). His vision had become very indistinct from his trying to force his eyes at school, and when he consulted me he did not have more than five-eighths normal vision. Atropia disclosed a most intense degree of hypermetropia. The application of a plus ten glass for constant use has restored the amount of lost vision and he has returned to school. Though he can not do the same amount of work as boys with normal eye, yet he will be able to complete his education. He seldom has headache.

CASE 10.—Miss Kate Phillips, of Gainesville, Fla., consulted me about her eyes, which, she said, had given her trouble since childhood. She was also the subject of intense headache following the use of her eyes. Compound astigmatism of a high degree was found in the right eye, with simple astigmatism in the left. Glasses have relieved her headaches, and she reads with ease.

I could multiply these cases to a large extent, but I deem it unnecessary. Those I have cited, I consider, ample to demonstrate the assertion that eye strain is a frequent cause of headache, neuralgia and other nervous disturbances.

DR. EMMET L. JONES

Considered the chief object of the discussion was to keep constantly before general practitioners the causative relation of refractive errors to headache, and various reflex nervous disturbances. This class of cases are so common that they constitute a large percentage of the work of every ophthalmic practitioner, and with them it has long been set aside as a firmly established and incontestable fact. The only special point he desired to mention, was that the amount of headache and nervous disturbance did not by any means bear a proportional relation to the amount of refractive error. In fact, in his experience he had noted that slight errors often caused the great-

est trouble; great errors, the least. In the former case, by undue effort the eyes overcome the error and make the vision perfect, but nerve troubles follow the strain; in the latter they do not endeavor to overcome the defect, and comfort is secured at the expense of distinct vision.

It is very common for vision, distant and near accommodation, and ophtalmoscopic appearance to be perfectly normal, no glasses being accepted; and yet when a mydriatic is used, a very slight error, most likely astigmatism, will be revealed, the correction of which dispels all troubles as mist before the rising sun. Therefore, no cases in which these reflexes seem to exist, however normal the conditions may appear, should be relegated to other causes, until a careful examination of refraction shall have been made under complete mydriasis.

Dr. Samuel L. Ledbetter.

In the discussion of Dr. Baldwin's paper, on errors of refraction as a cause of headache, neuralgia, &c., I have nothing to add to the paper. It covers the ground completely, and demonstrates conclusively that errors of refraction are frequent causes of headaches, neuralgia, &c., and should always be considered, when other causes fail to account for the trouble. The subject is an interesting one to the ophthalmologist of course, and should be to every one. It is important to the physician in general practice to know and appreciate the fact, that such troubles do exist; that errors of refraction are a frequent and prolific cause of neuralgias. I might relate some cases in support of the paper, but do not consider it necessary, and shall not tax your patience with a recital of them. It is only necessary that the physician who has not the time or the outfit necessary for determining the condition of the patient's refraction, should be impressed with the importance of sending his patient to a competent ophthalmologist for examination.

DR. JOHN E. PURDON.

He was much impressed with the importance of Dr. Baldwin's paper, and with the practical bearing it had upon the therapeusis of nervous derangements. He thought also that the value of the paper was self-evident to those who had much experience of the special disturbances of adolescence. He wished to point out the fact that, in certain cases, eye strain could be a matter of ocular demonstration to the sufferer himself. To anyone hypermetropic in a high degree, a single candle at the end of a dark room appears as a circular disk of light, which varies in size with the play of the iris. In the case of eye-strain, due to spasm of the ciliary muscle, the rounded outline of the disk of light would be interrupted and a segment of a circle of a greater degree of curvature would indicate the part of the muscle where spasm was most marked. In fact, it was possible to observe several of their segments of irregular contraction at the same time, the outline of the iris then presenting a cremated appearance. After the eye had time to recover from the spasm of accomodation, these abnormal phenomena would disappear, thus proving the causal connection.

Doctor Purdon brought another form of eye-strain to the notice of the meeting, the causation of which was more difficult to explain. He had observed an indefinite number of times, in his own case, that, whenever he fell asleep with his single eye glass held by the orbicularis muscle, on awaking his eye was in such a condition of strain that everything presented a confused, blurred outline. The only explanation he could offer to account for this state of irregular muscular stress within the eye depended upon the assumption that when an associated contraction of the ciliary muscle took place along with that of the *orbicularis palpebrarum*, the absence of a visual outline from the retina, which is the true reflex cause of accommodation, permitted an irregular contraction of the ciliary muscle to be easily effected.

DR. LEWIS GRIFFIN WOODSON.

I deem a discussion of the paper read by Dr. Baldwin almost entirely unnecessary, as the subject has been so ably and eloquently presented by its author. But a full and thorough ventilation of the question, will, I am sure, be of inestimable value in directing the attention of the general practitioner to eye-strain as one of the commonest factors in the production of severe and repeated attacks of headache, neuralgia, &c. I do not suppose there is a physician in this hall to-day, who has not been called to treat cases of headache, neuralgia, nausea and vomiting, where the usual remedies in such cases failed to afford the slightest relief. A great majority of such cases, gentlemen, are due to errors of refraction, principally astigmatism. Women are, by far, the greatest sufferers from eye-strain, due, I believe, to their more delicate and highly developed nervous system, besides the constant use of their eyes in doing fine needle work, requiring the most accurate adjustment. Slight errors of refraction, which would pass unnoticed in males, often produce great suffering in females.

I also wish to call attention to a class of cases which Dr. Baldwin has failed to mention, viz: Tonic contraction of the ciliary muscles, by which the eye is maintained in a condition of accommodation for a near point, and distant vision is improved by concave glasses. In some cases the true error, hypermetropia, is not only masked, but by over action of the ciliary muscles the eye is rendered myopic. Such a case occurred in my practice some time since. A son of Dr. Charles Whelan of this city, now a student of the University of Georgetown, consulted me about his eyes. He complained of headache, and considerable pain in his eyes after a day's study. Before coming to me he had consulted an eminent oculist of Washington city, who prescribed concave glasses of one-half deoptre, with no improvement. I ordered a one per cent. solution of atropia sulphate to be dropped into the eyes three times a day for two days. I then tested his vision and found a latent hypermetropia, amounting to one and one-quarter deoptre. In another case which I shall report, was that of a lady of this city

who had been a great sufferer from headache, neuralgia, nausea and vomiting, which she informed me had lasted for ten or fifteen years; she had tried every known remedy without success. She had also consulted oculists in Chicago and Cincinnati, both of whom prescribed glasses to correct the manifest hypermetropia amounting to only one-half deoptre. Their test was of course made without a mydriatic. After directing her to use a one per cent. solution of atropia for three days, dropped into the eyes three times daily, I again tested, and found latent compound hypermetropic astigmatism. Left eye, with a plus two deoptre, spherical combined with a plus three-quarters deoptre, cylindrical axis, 90 degrees. Right eye, with a plus two and one-quarter deoptre, spherical combined with a plus one-half deoptre, cylindrical axis, 90 degrees.

In this case you will observe there was only a fraction of the hypermetropia manifest. These cases are of much greater importance to the oculist than to the general practitioner, as an error had been made in each case by an eminent specialist.

THE TREATMENT OF LOCAL AND GENERAL PERITONITIS*.

BY WILLIAM ELIAS BROWNLEE DAVIS, M. D., BIRMINGHAM, ALA.,

Surgeon to the Birmingham Hospital of United Charities; Secretary of the Southern Surgical and Gynæcological Association; Fellow of the American Association of Obstetricians and Gynæcologists; Member of the Jefferson County (Birmingham) Board of Medical Examiners; Secretary of the Surgical Section of the American Medical Association, etc.

The comparatively recent discoveries in bacteriology have taught much concerning the pathology of peritonitis, and have very conclusively demonstrated that simple and septic inflammations have very wide differences.

Pawlowsky, Grawitz and Wegner† have made acute septic peritonitis the subject of careful experimentation, with special reference to its etiology, and the results of their experiments teach much in regard to treatment. It was observed that the suppurative nature of the peritonitis induced by their injections, always became more apparent the longer life was prolonged. Chemical irritants, in small quantities, produced no symptoms when injected into the peritoneal cavity of a dog, but large quantities produced violent attacks of hemorrhagic peritonitis. It was also shown that digestive ferments could produce peritonitis. Trypsin acted as a powerful irritant, and produced a hemorrhagic peritonitis which killed in from 4 to 24 hours, according to the quantity injected. However, nutrient media inoculated with the products of inflammation from these cases, produced by chemical irritants, remained sterile,

*Read before the Medical Association of the State of Alabama, April 13, 1890.

†Surgical Bacteriology.—Senn.

while on the other hand, experiments with pathological microbes always produced positive results. Experiments were also made by Pawlowsky‡, to ascertain what caused the inflammation in perforative peritonitis. Injections of fluid feces caused a hemorrhagic peritonitis, which produced death very rapidly. "At the autopsy, particles of intestinal contents were found in the peritoneal cavity, covered with fibrin and microscopically, peculiar short bacilli." This microbe he called *bacillus peritonitidus exintestinalis cuniculi.* Large quantities of the cultures of this bacillus, when injected, produced death from hemorrhagic peritonitis in from 20 to 24 hours; smaller quantities produced death from the same cause in from 24 to 72 hours, and still smaller quantities produced death after a number of days from suppurative peritonitis.

The following points have been pretty well settled by pathological study:

First. Simple peritonitis, when caused by a sufficient quantity of a chemical irritant, will produce death by the extent of the inflammation.

Second. Simple inflammation may terminate in septic peritonitis, by producing a weakened condition of the walls of the intestines, which permit the passage of septic germs from the intestinal canal into the peritoneal cavity.

Third. While pathological germs in a small quantity may be absorbed by the healthy peritoneum, without producing a peritonitis, the same quantity combined with a chemical irritant may produce a violent inflammation—the irritant having prevented the absorption of the germs and caused the exudation of a nutrient fluid for their multiplication.

Fourth. Large quantities of septic fluids and microbes always produce suppurative peritonitis; yet, a small quantity of either may be absorbed and destroyed, unless the peritoneum has been weakened by antecedent pathological changes.

Fifth. A septic fluid may gravitate into dependent parts of the peritoneum, and become shut up, either by plastic inflammation, or by a coil of intestine, and thus be prevented from

‡Centralblatt f. Chis., 1887—vide Surg. Bacteriology.—Senn.

producing diffuse peritonitis, but after a time this may rupture and produce death from general peritonitis.

Sixth. The germs of septic peritonitis will be found in the kidneys and other organs of the body, and in greater quantities, according to the extent and duration of the inflammation.

Seventh. The condition of the peritoneum, and the nature and quantity of the septic product will determine the rapidity of the inflammation, which usually ends in from 48 hours to six days, but death may be produced from shock in a few hours. Tubercular inflammation is always slow in its progress.

From a consideration of the foregoing principles, the following indications for treatment must be arrived at:

1. Promote absorption of the inflammatory products of simple peritonitis as rapidly as possible, and thus relieve the inflammation and prevent the possibility of septic peritonitis.

2. In the early stage of peritonitis, whether simple or septic, where the cause can not be determined, hasten the absorption of inflammatory products, etc., with purgatives.

3. When medical treatment fails to give relief, septic fluids should be removed by operative procedure.

4. In localized peritonitis—with circumscribed pus formation—the pus should be removed and the abscess cavity drained.

5. In acute septic peritonitis, operative procedure must be adopted early or there will be no chance of recovery offered by the operation, as the inflammation will become more extensive the longer it continues, and, too, there will be so great a quantity of septic germs absorbed into the system, that death will result from toxæmia, even though the local inflammation should be remedied by a late operation.

It has been demonstrated that, in the large majority of cases, peritonitis is a symptom of some well recognized lesion of the abdominal or pelvic viscera, and that the only rational treatment must be based upon this conception of the disease. Peritonitis is not a "disease distinct," as taught by Bichat, and upon which teaching the treatment of Alonzo Clark gained such great popularity. The "opium splint" is irrational, for

it not only locks up the products of inflammation, but as shown by Wylie, Johnson, Baldy and others, and by my own experience, subjects the patient to one of the greatest dangers of the disease, viz.: obstruction of the bowels from adhesions.

In case of perforation of the bowel, opium is indicated to relieve pain and shock, and to prevent peristalsis, and further escape of the intestinal contents into the peritoneal cavity. Again, morphine hypodermically may be used, with benefit, in some cases when there is persistent and uncontrollable vomiting; but at the same time, calomel in small and frequently repeated doses, may be dropped on the tongue and the bowels induced to act. There are many cases in which it is absolutely necessary to give a hypodermic injection for pain, but this should never be given in such doses as recommended by the advocates of the opium treatment, and should not be administered at all unless the patient's condition is being made more grave by the shock provoked from pain.

Of course, many cases of simple peritonitis will get well without treatment, and opium may relieve the pain, but it always subjects the patient to the danger of septic inflammation and to obstruction of the bowels from adhesion, and, too, in many cases destroys every vestige of chance for the patient, as the diagnosis will thus be obscured and an operation not resorted to in time.

The treatment must, of necessity, be adopted to meet the antecedent pathological conditions, which, according to Habershon*, are always causative. He studied five hundred autopsies of peritonitis at Guy's Hospital, during a period of twenty-five years, and he "cannot find a single case thoroughly detailed, where the disease could be correctly regarded as existing solely in the serous membrane."

The first two indications for treatment are best met by free purgation, as taught by Tait and others; and the majority of those who have adopted this plan select the manganesium salts, as they produce very large watery stools. When the stomach rejects salts, calomel may be used. In a case of beginning

* Vide Pepper's System of Medicine, Vol. II.

local peritonitis I prescribe one tablespoonful of Epsom or Rochelle salts, and teaspoonful doses to be repeated hourly till the bowels act six or seven times. In the beginning of a general peritonitis, when the bowels are tympanitic, I begin by giving a tablespoonful in a half glass of water, and direct that the dose be repeated every hour till the patient is freely purged.

This treatment is especially indicated in the threatened peritonitis we so often meet after laparotomies. I have seen the symptoms of a beginning peritonitis, which occurred on the second or third day after these operations, promptly cut short by the administration of a few concentrated doses of salts, or of calomel in from one to three grain doses repeated hourly.

In 1888, in a case in which I had removed the ovaries and tubes, on the second day after the operation, the temperature went up to 103, pulse 130, and the bowels were very tympanitic and painful. This patient was addicted to the morphine habit, and had taken several doses of morphine after the operation. She was given frequently repeated doses of calomel, and ice bags were applied to her abdomen. In twelve hours her temperature was considerably reduced, and the tympanites somewhat relieved, but not entirely so, as the purgation had not been satisfactory. It was kept up, however, until she was freely purged, when she rapidly improved.

I recall a case, operated on at the Birmingham Charity Hospital in 1888, in which I removed a very large parovarian cyst. On the fifth day she had very marked symptoms of peritonitis, and it was with much difficulty that her bowels were made to act. After the free use of purgatives, assisted by rectal injections, her bowels began to act, and she had eight or ten large watery stools. She was purged very freely, and was entirely relieved for several days, when she had returning symptoms of a similar attack, which were relieved by the same treatment. I could report a number of like cases, but this is unnecessary.

This treatment has succeeded so often in my hands that I have adopted it for the past year in some laparotomy cases,

early after the operation, when there were no symptoms of peritonitis. The bowels have been made to act at least once daily after the operation.

Only a few days ago, in a case operated on for ventral hernia, I gave salts soon after the operation. This woman had an action every twenty-four hours, and suffered no pain scarcely, notwithstanding she had become addicted to the use of morphine from the pain caused by a ventral hernia, in which the omentum remained outside of the abdominal cavity, and the bowel would come down daily through the same opening and get strangulated, only to be relieved by the relaxation produced by a dose of morphine. Other cases, operated on by my brother and myself, treated by this method, have proved most satisfactory. The early administration of purgatives, to keep the bowels open, never causes the patient any discomfort, but, on the other hand, lessens the desire for opiates. The purgative is always assisted by the administration of enemas of whiskey and milk every third hour, which relieve thirst and stimulate and nourish the patient. In the majority of cases an occasional hypodermic of morphine has been necessary. Calomel has been used oftener than salts, as the salts were not retained.

The purgative treatment of peritonitis frequently proves a very valuable diagnostic measure. If it does not succeed, we know that an operation is generally indicated. I have seen this treatment succeed a number of times when I was confident that a laparotomy would be necessary. Not only has this occurred in my cases, but in those of others with whom I have been in consultation. The relief afforded is so marked that the patient is often restored to almost a healthy condition in a few hours.

It is very important not to resort to the free use of morphine, unless an operation has already been decided on, and then given to relieve pain and lessen shock.

In cases of perityphlitis the surgeon has a fertile field, and one in which many lives can be saved by timely operation. Says Wylie*: "The number of cases occurring in every town

* American Journal of Obstetrics.

of any size is incredible to any one who is not specially interested in studying the subject. . . . In New York, one would suppose well to do patients would not be deprived of the only chance of being helped by laparotomy or surgical treatment; but not one in ten of such cases, even in New York, is the question of operation considered, unless all other means fail, and then with rare exceptions, in cases of general peritonitis it is too late."

Since the cæcum or appendix are always completely invested with peritoneum, as demonstrated by Bull, an abscess of the appendix must be intra-peritoneal at the beginning.

Robert Weir* found in one hundred autopsies, general suppurative peritonitis 57 times, circumscribed abscess 35 times, and extra-peritoneal abscess only in four cases. "In each of these four cases there was a large, ragged opening, showing that an ordinary necrotic process of the peritoneal wall had made the abscess extra-peritoneal."

I agree with Wylie that, should the symptoms of a local peritonitis in the region of the cæcum not begin to improve by the fourth or fifth day from saline treatment and local applications over the seat of the inflammation, an incision should be made down through the muscles and the peritoneum dissected up, until a place is found where the abscess is attached, and then opened. While the operation would be less difficult if delayed, the danger of the abscess rupturing and producing acute septic peritonitis must be borne in mind, and hence the increased difficulty in doing the operation is more than compensated for in the risk saved the patient. These abscesses are being neglected daily by men who stand high in the profession, and with fatal results. Some will not advise an operation until pus has been found with the hypodermic needle, and, as will be seen further on, a negative result should not influence us against an operation. Often very marked symptoms occur from a collection of feces in the region of the cæcum, producing vomiting, colicky pains, some tympanites and, in fact, all the symptoms of beginning localized peritonitis. Both

*Amer. Surg. Transactions.

pulse and temperature are increased. I have had quite a number of these cases, and they have always been speedily relieved by a purgative. Only a few months ago, I saw a woman, in consultation with Dr. Morris, who had all the symptoms of localized peritonitis in the right iliac region. Her bowels had not acted for four days. Her abdomen was too tender for me to make deep pressure. Dr. M. said he had been able to make out a collection of feces the day before, when the tenderness was not so marked, and that he had prescribed purgatives and enemas, but had not succeeded in getting the bowels to move. This treatment was continued, and in twelve hours she had three or four copious actions with entire relief of all symptoms. These cases must be differentiated from perityphlitis.

As I write, many cases recur to me where I have anxiously watched the progress of localized inflammation, fearing a rupture into the peritoneal cavity. I have seen some very violent attacks of local inflammation terminate in resolution. I recall two cases, in a block of each other, treated in 1887. Both were attacked with violent pain in the right iliac region, rapid pulse, and a temperature of 102½. Tympanites was most marked over the right iliac region. There was some vomiting and marked constipation in both. Oil enemas with purgatives produced copious actions. Morphine had to be used to relieve pain, and in nearly all of these cases small quantities of opium will be required, but not in sufficient doses to prevent the action of cathartics. I have noticed that all my cases were better after copious actions, and that they suffered very severe pain when the bowels did not act, unless very much under the influence of opium. In these cases there were no signs of pus collection, and hence an operation was not suggested, but I was very uneasy until I saw them on the road to recovery.

When it becomes necessary to operate, the surgeon must take a firm stand for the operation, explain the dangers of delay and the comparative safety of the surgical treatment, and there will usually be no difficulty in getting patient and family to consent to the operation. In this, as in all operations, the failure to accept its benefits is generally due to the manner in

which the physician represents it. It is remarkable how many intelligent physicians are willing to let their patients run the severe risks which these abscesses incur—awaiting the disposition of nature.

Only a few months ago I was summoned to an adjoining county by a very intelligent physician, to operate in a case of perityphlitic abscess, which had recently come under his care. The physician who had been attending her previously was unable to get pus with his hypodermic syringe, and decided that it should be let alone. When I saw her she was nearly dead; her pulse was 135 and very weak. Ether was given and the abscess opened, washed out thoroughly and then drained by two tubes. She had to be supported by rectal alimentation for ten days. During the operation her pulse ran up to 150 per minute. This woman had suffered for six weeks, and her life was saved by mere good luck. I could report a number of just such cases in which there was no operation, because the hypodermic syringe did not show pus. In this connection I will also speak of two cases of circumscribed peritonitis, with pus collection, each caused by ulceration of the sigmoid flexure of the colon.

One,* a woman who had been treated for dysentery. When I saw her she had a pulse of 130, temperature 102, and great pain in left iliac and lumbar regions. After the patient was anesthetized an incision, three inches in length over the seat of the abscess, was made, and after washing out the abscess thoroughly drainge tubes were introduced and kept in for ten days. As I cut through the muscles I noticed that the deep tissues were gray and thickened from inflammation. The other case referred to was treated quite recently. He was 50 years of age, and had been treated by well-known physicians in this city. I found a large, hard swelling in the left lumbar region. He had been confined to his bed and had noticed the enlargement for seven weeks. The physicians who had been attending him tried to draw off pus with a syringe, but having failed, deferred an operation. They finally decided to operate, to

*Reported before the Jefferson County Medical Society.

ascertain what the enlargement was, but after attempting to give the man an anæsthetic concluded that he would die from the ether, and told the family that they could only give him ease. When I saw him he had suffered so long that he was quite weak, bowels acted involuntarily and he passed his urine with difficulty. His general expression indicated septic infection. I at once diagnosed the enlargement as an abscess, due to ulceration of the sigmoid flexure of the colon, and advised that it should be opened and drained. Assisted by Dr. Hickman and my brother (Dr. J. D. S. Davis), the patient was anæsthetized with chloroform, and an incision three inches in length made over the enlargement. Deep tissues thickened and grayish in color. The cavity of the abscess very large and filled with very thick pus, entirely too thick to pass through the needle of even an ordinary sized aspirator. He received great relief from the operation, and never suffered any more from the region of the abscess. His bronchitis, and bowel and bladder symptoms did not improve, however, and he died in the third week after the operation from exhaustion.

The autopsy showed that there had been an ulcer of the sigmoid flexure of the colon which had caused the abscess, the wall of which was attached to the bowel. Before death the abscess had nearly healed. Drainage tubes had already been removed. This was a death purely and clearly from delay in the surgical treatment.

A number present will remember the death, from a perityphlitic abscess, of one of the profession of this city, only a few years ago. I saw the case, and was positive that it was one of perityphilitic abscess; the physician in attendance, however, did not agree with me.

These cases are so frequent, and since an early diagnosis, combined with prompt treatment must be had to cure them, we can not lay too much stress upon their thorough study.

Local collections of pus should always be removed promptly. If intra-peritoneal (and nearly all cases are primarily) and not attached to the abdominal parietes, an incision should be made into the abdominal cavity, and the abscess aspirated and washed

out, after which it should be laid open and drained, or its walls may be attached to the abdominal wound. There should no longer be any question as to the treatment of pelvic peritonitis with pus collection—pus should be removed and its cause, which is usually the tubes and ovaries. As recurring attacks of peritonitis call for the removal of the uterine appendages (when the cause of the inflammation, and they are the cause nearly always), so does repeated attacks of perityphlitis call for the removal of the vermiform appendix. Dr. McBurney's paper has thrown much light on this subject, and will do much towards encouraging early interference—operation between attacks. I have never seen a case in which I considered the treatment called for, yet I am convinced that there are many just such cases. During the past year I was called to a young physician, who had a second attack, but it was so slight that I discouraged his idea to have the appendix removed. I am not certain, however, that I gave him correct advice; for a large number have recurring attacks.

In acute septic peritonitis, as met with in child-bed fever, or after perforation of the bowels, or from the emptying of the contents of an abscess into the cavity, or after operative procedures, or accidental traumatism, such as gun-shot wounds, stabs, etc., nothing short of a laparotomy can afford any chance of recovery, and this will not offer much prospect unless done very early.

In the puerperal form, the surgical treatment is exceedingly urgent. Tait says that it is almost criminal neglect to allow a patient to die from peritonitis, whether puerperal or due to some other cause, without a laparotomy. Drs. Price, Wylie and others in this country have taken a decided stand for early operative interference in this class of cases. Montgomery says laparotomy is especially indicated by advanced tympanites and effusion. Barwell contented himself with washing and sponging out the cavity, in a case of suppurative peritonitis, without drainage; but Treves, Truc, Price and the majority of operators favor drainage, and irrigation as conditions require. In perforative peritonitis Escher and Truc would limit

the performance of laparotomy to the cases of traumatic origin, as "the adhesive inflammation can not be relied upon to limit the escape of the contents of the viscus." As the patient is healthy and the tissues in good condition, they think, in these cases, an operation not only possible but advisable. But they think that "in pathological conditions the adhesive inflammation can render more valuable service, as the patient is usually too exhausted from disease to stand a protracted operation, and as the softened condition of the tissues give no guarantee of a closure." Hence, they would not operate in perforation due to typhoid, dysenteric and tubercular ulcers. Mears says (Trans. American Surg. Asso. 1888): "Surgical interference is not justifiable and should not be instituted in cases of typhoid fever, in which perforation occurs when the infective process is at its height. In mild cases of the disease, in which the pyrexia has not been of high grade, and in which the perforation occurs at the end of the third week, or later, when the stage of convalesence is fully pronounced, laparotomy may be performed."

Tait, Treves, Sands, Wylie and others have operated successfully for peritonitis following the rupture of an abdominal abscess. In cases in which the onset is sudden, obstruction of the bowel *present*, pain intense, tympanites well marked, and the spread of peritonitis rapid, early treatment is very important. Sands operated succesfully on the second day. Wylie, in a case of perforative peritonitis, saved his patient by prompt operation. McMurtry saved a young physician who had two perforations of the cæcum.

So, there is no want of results to show that operations in all these cases, when done early, are of benefit, but on the contrary, late operations are universally fatal, for as Hadra has said, "*Well developed acute septic peritonitis*, as a rule, may be considered fatal, with or without surgical interference." In view of the fatality of this disease, he advocates (Trans. South. Surg. & Gynec. Asso.) "*Open treatment*, a full exposure of the abdominal cavity, which should be maintained until the danger has passed by. · · As much of the omentum and

of the bowels as find no ready room inside should be left resting on the surface." He claims that by this method "the cavity would be sufficiently cleansed and kept dry; the bowels to a great extent excluded; the exchange of poisonous materials diminished; the bowels, peritoneum and all the other involved organs relieved of pressure. · · Suction by the peritoneal and diaphragmatic lymph organs would at once be greatly counteracted." He says that the irritation of the dressings over the patient's abdominal organs need not be dreaded, as "we possess in the gutta percha tissue a nearly ideal non-irritative, air and germ-tight material."

In the discussion of Dr. Hadra's paper, I stated that I would adopt his method in my next case, but after a thorough study of his operation, I was convinced that it would not meet the indications for treatment so completely as the plan which I will suggest further on.

Hutchinson says it is impossible to appreciate the wild fire rapidity of acute diffuse peritonitis, and this is the most important point to remember in the treatment; for we all appreciate how fatal are the conditions produced by the inflammation, and we are reminded that we must begin treatment early and work rapidly to stop its progress. I have seen violent attacks of local peritonitis produced in animals in two or three hours. Only a few months ago, one of my horses snagged his abdomen in jumping a paled fence. His intestines were dragged in the dirt and feces of the stable, and notwithstanding they were washed with hot water for one hour, beginning forty minutes after the injury, the peritonitis was very violent. This washing was kept up while we awaited the arrival of the veterinary surgeon.

Last year I was invited by Dr. Wyman to see a man at the Charity Hospital about twenty hours after he had been shot in the abdomen. We decided that the man was dying, and did not operate. He died four hours afterward, and the autopsy revealed a general hemorrhagic peritonitis. This patient was seen by Dr. Wyman a few hours after the injury and brought several miles to the hospital. At that time he saw no

symptoms to indicate a perforation of the bowel or of hemorrhage.

During the month of September, 1889, I saw a case with my brother, Dr. J. D. S. Davis, in which he operated fifteen hours after the man had been shot in the abdomen. There had been considerable escape of feces into peritoneal cavity, and peritonitis was very extensive.*

I have so often seen peritonitis occur and produce death in from 24 to 48 hours in experiments on animals, that I would not think of waiting for symptoms in cases of perforation of the abdomen. Symptoms are aften just as prominent when there is no perforation of the bowel or injury to the abdominal viscera. Several months ago I made an exploratory incision after a gun shot injury, in a man who had at the beginning nearly all the symptoms we would expect in a case of perforation of the bowel. The bowel had not been perforated, however.

In every case where the abdominal cavity has been entered, it should be opened and explored immediately. To wait for symptoms is to wait too long; for a peritonitis will have been developed, which will usually kill, regardless of operation.

Give morphine to relieve pain and shock, and operate at once, even though the patient should feel perfectly well after the relief thus afforded.

In cases of perforation of the appendix, etc., the operation should be done immediately—unless the patient is almost pulseless—as by so doing the shock will be relieved. The same rule will hold in cases of ruptured abscesses. In cases of perforation in typhoid fever, the condition of the patient, before the accident, must be taken into consideration, as pointed out by Mears; but as this is a fatal accident, unless it can be remedied, by operative measures, this procedure should

* On the day after reading of this paper I did a laparotomy on a man twelve hours after a stab of the abdomen which perforated the bowels in four places. Peritonitis had involved about one-half of the cavity, the side on which he was stabbed. The intestines on this side were very much inflamed and quite tympanitic.

not be condemned without having been tried in a large number of cases.

The following plan of treatment should be adopted in cases of *acute general suppurative peritonitis*, which will allow of the complete exposure of the abdominal cavity, the removal of the cause of inflammation, and assist in restoring the functions of the intestines:

The abdomen is opened in the median line; the cause, if found, removed; the cavity thoroughly douched with hot water; all adhesions broken up, and if tympanites is not marked, drainage tubes are introduced, through which the cavity may be washed out, as indications require. If the cause be found in the region of the cæcum the drainage tubes should be introduced through a second incision in the right iliac region.

In those cases in which tympanites is marked, causing pressure on all the abdominal organs, and thus creating much constitutional trouble, it will require special attention, and upon this point I desire to lay great stress; for this condition is a dangerous one of itself. Not only the weakened intestinal wall permit of the continued passage of septic germs into the peritoneal cavity and afford constant infection, but it must be remembered that the bowel cannot be replaced without great pressure and consequent traumatism, which will often kill in a few hours from shock thus induced. In advanced cases of peritonitis it must also be remembered that the walls of the intestines are rendered inactive by inflammation, and the power of contraction cannot be restored until the inflammation is relieved; and hence, the bowel will continue tympanitic and the exchange of septic germs kept up, unless this condition is remedied. Dupaul punctured the intestine with a fine hollow needle in cases of tympanites, with dangerous pressure symptoms, and this has been recommended by the leading writers up to this time; even Senn refers to this as a procedure which may be resorted to. This has been tried by me a number of times, and I was never able to see an appreciable decrease in the tympanites, and it is not reasonable to suppose that a para-

lyzed bowel could expel any quantity of gas through a needle. I have also practiced making incisions into the bowel, and by pressure attempted to expel the gas, but this does not prove satisfactory. I consider the best method of relieving a distended, paralyzed gut, full of poisonous gas, is to fill it with hot water, as this will not only free it of tympanites, but in getting rid of the gas and feces, etc., prevents infection.

Hence, in extreme cases, I believe an opening should be made in the lower part of the ileum, and the bowel thoroughly irrigated. An artificial anus should be formed and the bowel irrigated through a soft tube as necessary to prevent tympanites and adhesions. Purgatives can have but little effect on a bowel, in fully developed septic peritonitis, when nearly all the coats are inflamed; so we must reach it mechanically. With this plan the colon can be washed through a rectal tube, the small intestine irrigated as required through the artificial anus, and the peritoneal cavity drained and douched.

If the ileum is flexed and an anastomosis done before making the artificial anus, when it becomes necessary to close the artificial anus, it can be done without disturbing the flow of the intestinal contents. In some cases I would recommend, instead of the artificial anus, an ileo-colostomy, with Davis' (S. D. S.) catgut plates, in order to establish a competent opening from colon to ileum so that water may be made to pass from a rectal tube into the ileum without obstruction at the ileo-cæcal valve. When this is done the bowel can be washed out as required.

Dr. Erasmus Taylor Camp.

My observation is, that there is greater opposition on the part of the profession—especially the senior members—to the operation of laparotomy, washing out the peritoneal cavity in peritonitis, and in other pathological conditions, as advocated by Dr. Davis in his paper just read, than from the laity; and that the younger members are sometimes severely criticised by

them for performing, or proposing to perform the operation. When this opposition is not brought to bear on the patient or his friends, it is an easy matter to obtain the consent of both parties to the operation.

THE EARLY TREATMENT OF CONGENITAL CLUB FOOT.

BY SAMUEL MARDIS HOGAN, M. D., OF UNION SPRINGS,

Grand Senior Counsellor of the Medical Association of the State of Alabama.

In presenting this subject to you to-day, I do so not for the purpose of advancing any new theory as to the causes of these deformities, nor for the purpose of introducing any new or original line of treatment, but to endeavor to awaken an interest in these unfortunate cases which will result in their obtaining earlier treatment and more speedy and permanent cure.

In order that we may fully appreciate the importance of this early treatment, we should remember that immediately after birth not only the ligaments and tendons are soft and easily stretched, but even the tarsal bones are undeveloped and can be moulded into proper shape.

At this age, too, the growth is rapid and will aid very materially in overcoming these deformities after we have adopted a course of treatment suitable to the case.

If, however, we neglect the treatment of these cases, which is so frequently done, there will be defective nutrition of the parts and a changing of the bony structures that may defy all of our resources to rectify.

This being the case, it is certainly the duty of the attending physician to institute this treatment immediately after birth, as every day that it is postponed will be valuable time lost, for the effects of the pressure on the nutrition of the parts will be rapidly manifested. Structural changes will soon take place, which will complicate the treatment very materially and may even require an operation with the knife.

It is true that a tenotomy may be required even after the best directed efforts, but it will be an exception, and an exceedingly rare one.

In making this statement, I know there are many eminent surgeons who contend that every case should be cut, and notably among these is Dr. W. E. Balkwell, of London, who, in an article on this subject, read before the 19th International Medical Congress, says:

"In stating the practice I have been using and I am proud to say never without success. . . .

"This may well come from the home of the specialist . . .

"The child is brought to you at from two to three weeks old, and you have to decide when to operate, for operate you must; no extension apparatus is of any permanent good."

Edmund Owens, M. B., F. R. S., who also is a surgeon in the same home of the specialist, takes an entirely different view, and says in his book on the "Surgical Diseases of Childhood":

"The plaster of paris method enables us to treat the club-foot of a tender infant with security and success and without the expense of a mechanical apparatus, requiring daily attention.

"Thus, children may be dealt with in the out-patients' department of a hospital or in the outlying districts of a country practice, with as much convenience and certainty as if they were inmates of a hospital."

In our own country the majority of our most successful orthopedic surgeons hold that a tenotomy should not be performed until it was absolutely necessary. This question will be discussed further on.

The question now arises, how should we proceed with the treatment, and in the event of failure, when should we resort to tenotomy?

All infants should be carefully examined immediately after birth, and if a club-foot be found the nurse should be shown and fully instructed how to manage the case for several weeks. Three or four times a day the foot and leg should be gently

but thoroughly rubbed and kneaded and the foot and heel straightened. This should be done systematically for three or four weeks, when it will generally be found that the foot can be placed in a correct position with very little force and without interfering very materially with the circulation, when a plaster of paris dressing can be applied and allowed to remain ten days or two weeks when it should be removed, the foot and leg bathed in warm water, well rubbed and kneaded and the dressing again applied. This may be repeated for several months, or until the contractions have been entirely overcome, or it may be advisable, after a few dressings, to split the plaster of paris dressing in front and have the foot taken out every day, or every four days, and after being attended to it can be replaced and easily secured with a roller bandage. This dressing can also be easily arranged so as to use the artificial rubber muscles of Dr. Sayre, if it should be thought advisable to do so. At no time, however, should the plaster of paris dressing be applied so as to affect injuriously the circulation or produce discomfort or pain, and we can generally avoid this by first applying a soft, thick sock, or a roller bandage of some soft, thick material, leaving the toes exposed, as suggested by Mr. Edmund Owens, and then applying the plaster bandage, which should be done quickly and smoothly, the foot being held in the straight position until the plaster has firmly set.

The time may come, however, when after carrying out this line of treatment, even faithfully and intelligently, the deformity has not been relieved, and we will then have to decide whether to operate or not.

To decide this question, Dr. Sayre says:

"Distortions or deformities which are the result of contractured tissue, can only be removed by forcible rupture of the same, or by cutting before traction is applied.

"A contracted tissue is one simply shortened but which can be elongated by careful, continuous and judiciously applied traction and manipulation, and therefore does not require to be divided.

"A contractured tissue is one which has undergone some

change of structure in the firbrillæ of the muscles, and which can not be elongated or stretched, unless the tissues are severed or torn, and therefore sections in such cases are absolutely necessary. Mr. Little, of London, describes this condition as one of structural shortening. In order to determine which kind of tissue we have to deal with, he lays down the following rule:

"If in any case of club-foot, or other deformity, we stretch the shortened parts to their utmost tension by manual force or mechanical aid, and when the parts are thus stretched, we suddenly add to the tension by pressing with the thumb or finger on the part thus stretched, or by pinching the stretched tissue between the thumb and finger, and if, by either of these acts, we produce a reflex spasm or sudden shivering of the whole body, that muscle, tendon, or tissue, thus yielding, the *reflex spasm is contractured*, and can not be elongated without the severing of its fibres."

This teaching of Dr. Sayre has not been fully adopted by the profession, but I know of no one who denies its correctness, and as a rule his opinion on this subject is entitled to the fullest consideration.

Dr. Edmund Owens says: "If, after some weeks of simple plaster of paris treatment, the position of the foot, though improved, be not entirely corrected, if there remain considerable inversion of the sole and some drawing up of the imperfectly developed os calcis, a tendon must be divided."

There is yet some other conditions that must be eliminated before we proceed to cut. If there is any irritation of the clitoris it must be relieved by local application or excision, or if there be phymosis, circumcision should be performed, as the fact has been fully settled that it is almost if not entirely impossible to cure a case of club-foot with either of these conditions existing.

About two years ago I had a patient with congenital talipes equino varus of the right foot, in which I commenced this treatment immediately after birth. The mother and child left as soon after her confinement as she was able to travel, and I

saw no more of the case until he was about four months old, when she returned with him for further treatment, as improvement seemed to be very slight.

Upon examination I found both feet and legs to be of nearly the same size, and very well developed. If he was the least excited it was almost impossible to straighten the foot, but whenever I could attract his attention, and get him in a playful mood, it would take very little force to overcome the deformity, which satisfied me fully that there was some irritation some where that was keeping up, or, at least, intensifying these contractions, and as Dr. Sayre and other surgeons had frequently reported such cases, I naturally examined the penis for the cause, and found a phymosis and an adherent prepuce, and with the assistance of Drs. Franklin and Bledsoe, I did a circumcision and liberated the adhesion, after which improvement was rapid, and his recovery seems to be perfect. In this case I should have most certainly operated had I overlooked this source of irritation. When we have fully decided that an operation should be done, we must then decide where it should be done, and at this point Dr. Sayre lays down this rule:

"While the patient is anæthetized put the parts under consideration upon the stretch to their fullest extent, and while thus stretched press with the thumb or finger upon the tendon or fascia thus stretched, and if this additional pressure produces reflex contraction, that tendon or fascia must be divided and the point of pressure producing spasms, is the point for operation."

In performing a tenotomy it is important to have a blunt-pointed tenotome, so as to avoid injuring important blood vessels and nerves; still we can use a sharp pointed one to puncture the skin and the sheath of the tendon if it should be preferred. The knife is introduced flatwise until it enters the sheath of the tendon, when it is passed under it, the edge turned upwards against it, and the tendon severed by being pressed upon it, the knife is again turned flatwise and removed, pressure being made with the finger along the track to avoid

the entrance of air. The wound is hermetrically sealed with rubber plaster, and when all of the tendons and fasciæ are cut, that will enable you to put the foot in proper position. It should be done immediately, and the dressing applied so as to retain it in position until the wounds have healed, and the bloody serum or lymph that has exuded between the cut ends of the tendon becomes organized, which will usually take place in about two weeks.

For this dressing I would still prefer the plaster of paris, although there are many surgeons who prefer a different one, and each one of them can be applied with more or less success. Those dressings, however, that are made with adhesive plaster should usually be avoided, as they are so liable to irritate the tender skin of the infant.

The usual point for cutting the tendo Achillis is just above its insertion into the os calcis, and as the knife is introduced into the sheath and just below the tendon, there will be no danger of cutting any important blood vessels or nerves. The tendons of the posterior tibial muscle, and the flexor longus digitorum may be cut most conveniently just above the internal malleolus, the patient laying on his side. The operation is done on the same principles as dividing the tendo Achillis, and the only precautions necessary is to avoid cutting the posterior tibial artery and nerve which might be endangered by carrying the knife too deeply; or it may be cut below the ankle in its passage to the scaphoid bone. The tendon of the tibialis anticus will be found in front of the ankle where it may be felt as a tense cord, lying somewhat nearer the internal malleolus than in its natural position, where it can be very easily cut and without danger, as the anterior tibial artery lies external to it.

The plantar fasciæ is to be divided in the same manner as we divide the tendons, by passing the knife under and cutting outwards, and it may be necessary to divide it in the posterior portion and opposite the metatarsal bone of the great toe. Other tendons and fasciæ may be so contracted as to need division, but when they are put upon the stretch they are generally readily detected, and can then be divided.

After division of all tendons, fasciæ, &c., that may be needed to strengthen the foot, and after healing of all wounds, and after the divided tendons have been reunited, it will still be necessary to keep the foot in a proper position by means of the plaster of paris dressing, or some of the many other forms of braces, splints, or shoes that have been devised for such cases, and in no instance should we relax our efforts to develop the muscles by daily friction, massage, electricity, &c., until the deformity has been permanently removed and our little patient is able to walk perfectly with an ordinary shoe.

I have purposely avoided going into a detailed account of the various appliances for such cases, because I believe if the treatment is commenced immediately after birth, and faithfully carried out you can accomplish with the plaster of paris dressing, and artifical rubber muscles when necessary, every thing that could be done with the most expensive orthopedic appliances, and with much less trouble.

ANTISEPICS IN SURGERY.

BY CHRISTOPHER AMERICUS ROBINSON, M. D., OF HUNTSVILLE,

Member of the Medical Association of the State of Alabama.

It is not my purpose to give you a lengthy or scientific paper on the subject of antiseptics in surgery, but in as few words as I can, to try and impress on the minds of those who have never tried this method, the importance of so doing, for most assuredly, every fair minded doctor will admit, if there be an advantage in this, as I claim, over the old treatment of surgical wounds, then certainly our patients have a right to it, for they are entitled to the very best we can possibly do for them. Until but a few years ago, we could not understand why a simple fracture with no external communication, healed so readily and gave us so little trouble, when at the same time one of a compound nature was so much more serious, followed generally by inflammation, suppuration, high fever, &c., but this is made clear now through the germ theory; those subtle, unseen micro-organisms enter into our wounds, producing sepsis, with its many evil consequences following. But many thanks are due the great Lister and other surgeons, that we are now able to combat these poisonous germs, and prevent in a great measure the trouble they have heretofore given to both patient and doctor.

But, as I understand this germ theory, we are not only to prevent these poisonous germs, microbes, bacteriæ, or whatever you may prefer to call them, from entering our wounds through the atmosphere, but we must make sterile every thing which comes in contact with our wounds, either by asepsis or antisepsis, such as the integument and clothing of the patient, the hands and instruments of the operator, and I know from sad

experience, where the fine point of a needle carried this mysterious and mischevious poison and gave great pain and suffering. If the old saying be true, that nothing succeeds like success, I believe I can show by fair comparisons the very great improvement by antiseptic methods over the old plan of surgical operation.

In the clinics of the great German surgeon, Billroth, of Vienna, from 1860 to 1877, there were made 315 major amputations, after the best known methods before antiseptics were introduced, with a death rate of 54 per cent., and yet, from 1877 to 1880, this great operator made 91 of the same amputations under strict antiseptic precautions with a death rate of less than 20 per cent. The general death rate in many of the best conducted hospitals for major amputations ranged anywhere from 20 to 50 per cent., while, since the use of antiseptics, you can have some idea of the saving of life, leaving out the immense saving of pain and suffering, by the following well authenticated figures:

Von Brun made 47 major amputations, and Socin 48, without a single death, while Busch made 57, and Valkman 220, with a loss of only 3½ per cent. These were all done under strict anticeptic methods.

I have with a purpose mentioned these several men and their wonderful success, to show that it is not to any one man, but to antiseptic methods that has given such wonderful results. And is it possible to make any such record by any other manner of operation? I think not.

One of the most fertile fields for the good work of antiseptics has been in the prevention of blood poison, especially in cases of compound fracture. From accurately gathered figures from many of the best managed hospitals both in America and Europe, before the use of antiseptics show a mortality ranging from 30 to 60 per cent., and the majority of deaths from blood poison; while with antiseptics in Billroth's and some other hospitals it has been reduced to one-tenth of what it formerly was; and the most remarkable of all others is, the recent report given by one of our own surgeons, Dr. Dennis of Bellevue

hospital, New York City, who has had nearly nine hundred cases of compound fracture with a loss of less than two per cent., and not one of blood poison. It does seem to me that no statement could give more force than this in favor of antiseptics.

In the wide domain of surgery, I believe no part of it has received more benefit from the discovery of antiseptics, than that of the abdominal cavity, since now the almost absolute safety of opening it, while using strict antiseptic précautions. Yet, we can all remember when to open the peritoneal cavity was not only a serious but a very grave procedure, while now one has but little claim to the title of surgeon who has not made his several successful laparotomies, some his hundreds, and more than one his thousands.

If I am not mistaken our own Battey, of whom we all feel proud, has the best record of any man either living or dead, having opened the belly nearly five hundred times, with a loss I believe of about five per cent; while Lawson Tait, of England, leads the record in number of cases, being nearly three thousand, with a loss of less than ten per cent., while the operations by this wonderful man, when being done for the ovariotomy alone, has been reduced to less than four per cent. This is most remarkable, when we remember not many years ago the average death rate was nearly fifty per cent. Our suffering women, at least, ought to be able to fully appreciate the great blessing antiseptics has brought to them.

During our late war, and we all remember it but too sadly, there were reported sixty-four cases of wounds in the stomach, with only one recovery; also reported 650 cases of wounds in the intestines, with five recoveries from the small intestines, and fifty-nine from the large intestines. Even so late as during our war, wounds in the abdomen were regarded as almost certainly fatal; and our surgeons hardly dared to open the cavity, search for the track of the fatal bullet, and stitch up the wounds in perforated bowels. While of later years, Semms, one of our own surgeons, has opened the abdomen, hunted out eleven wounds of the bowels, closed them up and saved the

life of his patients; while Hamilton, another American surgeon, closed up thirteen perforations, and his cases all recovered. Morton has recently reported twelve recoveries from nineteen severe stab wounds of the intestines, and thirty-six recoveries from one hundred and ten bowel wounds. Since the recent grand achievments in antiseptic surgery, there are reported over five hundred operations on the kidney and for the removal of the same, with nearly four hundred recoveries.

I do hope, with these striking facts before us, there is not one doctor here, who will permit a patient to die from either a stab or bullet wound of the abdomen, without at least an effort for his relief through antiseptic surgery, and not sit quietly by as was once the case, give opium to relieve the pain, and look on till death terminates the case.

With the help of antiseptics even the brain may be penetrated by the surgeon's knife, and in seventeen reported cases of tumors in the brain, thirteen recovered. Certainly with such a showing we should not be afraid to thrust our knife into any part of the human anatomy that may demand it, without some hope of benefit to our patient.

Many of our doctors living in the country and smaller towns, away from the medical centres where surgery is most generally practiced, have an idea that to prepare the antiseptic solutions and dressings generally used for surgical operations, is very tedious and troublesome, while on the other hand, nothing is more simple and easy. I believe that surgeons almost everywhere are now agreed that the bichloride of mercury is the cheapest, most reliable and best for general use, at least I so found it in all the New York hospitals visited last winter, where it is used in varying proportions from one grain bichloride to 500 parts water, down to one grain to 5,000 parts.

The solution most generally is one to about 2,000, and is very easily made, by adding one grain bichloride to four ounces of water; while all instruments to be used should be immersed in a carbolic acid solution of one part to twenty of water. And all needles, ligatures and sutures used should be immersed

in the same. The operator should thoroughly cleanse his hands with soapsuds, and rinse them in alcohol. To dress the wound after the operation, the usual plan is to take cheese cloth, and for each ounce by weight, use one dram of iodoform to two ounces of soapsuds, and rub this in while soaking. This makes the iodoformized gauze, which can be placed directly over the wound, and should be covered with sublimated gauze, which is made by soaking cheese cloth in a solution of bichloride of one to one thousand.

Wounds so dressed, need not be interfered with for the first several days, and will generally be found clean with no unpleasant odor. And it is a rare exception that a wound does not heal by primary union when so treated; and the exception can be generally traced to the carelessness of the surgeon, or his lack of proper application of the method, and not the method itself. This mode of treating wounds applies to all kinds of surgery, from a capital operation to the amputation of a finger.

If these suggestions should be the means of inducing any doctor present to adopt this treatment, I shall feel satisfied, for I am sure that he will be greatly pleased and his patients much benefitted by his using antiseptics in surgery.

THE PRACTICAL RELATION OF THE PHYSICIAN TO LIFE INSURANCE.

BY EDWARD HENRY SHOLL, M. D., BIRMINGHAM, ALA.,

Ex-President, Senior Counsellor and Member of the Board of Censors and Committee of Public Health of the Medical Association of the State of Alabama.

The matter of life-insurance comes more or less frequently in the way of every physician, as it is now one of the accepted lines of business, tested and tried by the experience of many years, growing in strength and favor. The work of the medical man underlies the safety of the vast interests involved—so vast that the figures almost startle.

On his fidelity, conscientious ability and painstaking thoroughness the stability of these great institutions largely depends. It is to the great credit of the profession that they have been faithful in the past, for while the great law of human averages could have been through the many years a guide to a certain extent, careful elimination of unworthy risks has been one of the great factors of the abiding success of life insurance.

Mistakes have been made, of course, and life insurance companies have failed, as do at all times all business enterprises, but these failures, as a rule, have been due to improper investments of premiums, with too large commissions and salaries; in other words, to injudicious, even though honest, management.

Teaching by object lesson is one of the accepted methods of the present day as definitely impressing the idea sought to be conveyed. I give you, therefore, some figures which I have obtained from Mr. John E. Pattison, vice-president of the Union Central Life Insurance Company, of Cincinnati, Ohio, and

from Mr. Robert A. Maxwell, superintendent of the insurance department of New York, in the thirtieth annual report, which report is accepted by all United States insurance men as standard authority:

"Business, etc., of all regular insurance companies in the United States on December 31, 1888:

Total assets	$ 657,044,288
Total surplus	82,470,773
Premium income	120,435,791
Interest and other sources	33,616,180
Total annual income	154,051,971
Total expenditures	108,816,822
Total insurance in force	2,322,013,513
Number of policies in force	1,047,076
Gain in insurance during the year	291,901,642
Death losses	36,751,187
Percentage to mean amount of insurance in force	1.38

Add to this the increment of 1889 with its average proportionate annual increase, and we have a business interest of colossal proportions depending very much upon the requisite qualifications of their medical examiners.

Now, although I have been more or less closely connected with life insurance work for nearly twenty-five years, and have examined and passed upon a large number of applicants, it would be presumptious for me to stand before you as a teacher. This I disclaim. My desire is to present rapidly and succinctly to you some few points of practical importance suggested by personal experience and observation; also some gleaned from other sources who have had larger opportunities for investigation, and have not been limited to an allotted time.

Preliminary to this it occurs to me to say that it would be a matter of advantage to the insurance companies, of convenience both to the physician and agent, if the medical part of the blank application could be entirely separated from other portions of the application, given to the physician, and by him forwarded direct to the home office, without supervision or review of the agent or knowledge of the applicant until the company reaches and forwards its final decision. It has been said in my hearing, such a doctor is "too rigid in his examinations."

Now, as I take it, the medical examiner is acting in a fiduciary capacity. He is, to a certain extent, for the amount involved, a trustee for the company, and he stands in a certain sense as antagonistic to the party examined, to scrutinize with accuracy, according to his ability, the man, ready to turn in the full blaze of his best light, and search out all the dark corners, the hidden recesses of the man before him, to find, if in brain, lung, heart, stomach, liver, kidney, spleen, there is any want of harmony with the full measure of health.

He is to interrogate carefully the full bearing of heredity in all its details, to discuss the law of habit and its deviation from the true standard of right. He is to investigate carefully the details of occupation, of climate, of means, of possible sources of income. It becomes him carefully to examine the ear, eye, nose, throat, the condition of the skin, the appearance of the tongue, as all these elements must enter into the final summation by the conscientious physician of a first class risk, even although these requirements may not be found in the ordinary application, for they are all factors in the perfect solution of the problem.

The relation of the physician to the agent has, I suppose, been with rare exceptions, satisfactory. Occasionally an irresponsible party is turned loose on the community having an eye single to his own good more than to the interest of the community and to his company. Fortunately these exceptions are rare, but when a conjunction of such material with an unqualified or unworthy physician is made, it requires no prophet to foretell the result. Sometimes such a character as this, coming in contact with men of ability and integrity, pursues another course, as indicated in a letter to me as a leaf from the personal experience of one of my medical friends who writes me thus: "I find from personal experience these functionaries place greater stress upon the money value of their services than upon their obligation to those they serve. For instance: They bring forward an applicant for examination, and you conscientiously state or affirm, as required of you, that, in your opinion, the party is not a safe risk, therefore

you refuse to recommend him. This opinion goes directly to the parent office, and the applicant is at once refused solely upon your affidavit. You get your fee, but the selfish agent gets nothing for his weary weeks of pleading and expenditure of money. Hence, he is soured, and commences to spank the seat out of your official trousers, by ceasing to patronize you, gets revengeful and seeks at once more plastic material for his work of self-aggrandizement, such as will pass any one, well or rotten."

Here we have a dark picture, but dark alike on both sides, for the man who would thus defraud his company can only do it by one of two means, an unscrupulous doctor or an incompetent one. Until humanity is made of entirely different material, such departures from rectitude will occur in every legitimate line of business. Looking at the world in its aggregate of units, as growing better day by day, such sources of trouble as these will grow fewer in the passing years, as we hasten toward that happy golden period when "the lion shall lie down with the lamb," and true honesty shall be not simply a matter of policy, but one of principle.

Thorburn says, "The responsibility of medical examiners is controlled by the principles of common law in all countries." "In Michigan any medical examiner, referee, or person seeking insurance who knowingly makes any false statement to the company as to bodily health or condition of the person applying for insurance which would affect the propriety or prudence of granting such insurance, shall be guilty of a misdemeanor, and shall be liable to a fine of one thousand dollars, to imprisonment in the county jail for three months and liable in action to the company for the full amount of insurance." A stringent but wise law.

So many are the composite elements that enter into the harmony of a thorough and complete work that the task imposed upon the careful physician is often a burdensome one, and one that with a desire to do justice to all concerned is certainly not to be slightly performed. The environments of different localities that trend toward certain diseases of grave nature, the

averages of death rate are all to be considered in the inspection of the individual, even although there may be at the time no departure from health just so far as his age, heredity and occupation may affect him.

While with the passing years we have the light of a golden civilization, with all its surroundings to increase the general expectation of life, we have certain conditions in the rush of "the maddening crowd," with its desires for and opportunities of wealth that early impair the forces of life, shatter the nervous system, overtax and weaken the heart, set up interstitial changes in the kidney, and pave the road to an untimely grave. These facts and considerations should enter into the study of our separate cases and guide us to safe and wise conclusions.

Of later years more accurate and careful study have been given to the functions of the kidney and the pathological changes in its structure, so far as relates to the bearing upon life and its expectation. In one company, the United States life insurance company, eleven per cent. of their mortality for three years occurred from Bright's disease, hence we have here an important study to ascertain how far the presence of albumen in the urine should go towards vitiating an application. Many who have written hold diverse views as to the grade of its bearing upon the condition of the general health, some arguing that when intermittent, occurring at definite periods, or at certain hours of the day, that it is physiological and functional and does not militate against the risk, albumen having been known to be present in urine for twenty years without unfavorably affecting the health. If, however, the quantity of albumen is large, if we have hypertrophy of the left ventricle, if we have tube casts, if we have a gouty dyscrasia, if the applicant is forty or more years of age—if the retinal changes are present, the applicant must of course be rejected, as sooner or later these symptoms, though modified and alleviated for a time, will return and lead to a fatal issue. Strange exceptions occur. A gentleman patient of mine, some fifteen years ago, presented all the graver symptoms of albuminuria, with an aggravated series of dropsical symptoms of

gradual invasion with almost entire suppression finally of urine, profound uremic coma, and yet came through it all and up to a gradual, and up to this time, an apparently perfect recovery, leading now an active life of hard labor and busy toil.

Since 1865 I have met but one case where chronic suppuration of the middle ear was a cause for rejection. Apparently perfect health obtained until the period of his death by yellow fever in Pensacola several years later. Here the discharge was not continuous, but had showed itself at intervals for a number of years before as the possible outcome of disease of childhood. In strumous habits this we know follows scarlatina for an indefinite period, becoming an ultimate cause of death.

Baker, of Cleveland, Ohio, advises the unconditional rejection of cases where the canal is narrowed from any cause; where there are polypi in the tympanic cavity or granulations; where there are desquamative processes in the middle ear or external meatus; where there are caries or necrosis of the temporal bone; where there is paralysis of the facial nerve; where there are fistulæ of the mastoid cells; where there is abundant bloody or offensive discharge of long duration, and those with pains behind, in front of or above the ear, and where we have giddiness, unsteadiness of gait and other evidences of cerebral trouble. Reference to such accurate detail as this, which is based upon fifty post mortems, will always be a safe guide. Dr. Baker deserves great credit for his careful elaboration.

Careful study of the heart presents itself as a necessity. The distinction between mere functional and temporary disorders and the graver lesions are to be differentiated, and the comparative class of risk to be determined, for even in certain organic troubles, there is a reasonable expectation of life. These cases might be insured at higher rates. Stenosis of the aorta, with its ultimate dropsical accompaniment with mitral trouble, though regarded as the least grave of valvular trouble, sooner or later ends fatally. Aortic regurgitation, with its accompanying dyspnœa, angina pectoris and the irregular pulse which we have all noticed, proves fatal suddenly as a general

rule. A diffused mitral murmur is always significant of danger. Thompson says: "Functional murmurs are always systolic in time and found close to the left of the sternum, between the second and third ribs, one and a half inches to the left of the sternum, between the second and third ribs and over the aorta." This class of cases, though comparatively infrequent in the experience of most of us, requires most careful and thorough examination.

With the graver pulmonary lesions we are most familiar, and they are the more readily detected. Chest measurement inspection, expansion, percussion, auscultation, family history, will soon solve any difficulties that present themselves of a graver character. In addition to the special and other symptoms, pulse temperature, appearance, comparative weight, heredity, should all form part of the estimate, and especial regard should be had as to the prolonged expiration at the apex, as indicating the earliest possible stage of the degenerative process in the lung.

I have found the excessive use of tobacco often to be a potent factor for evil in instituting various degenerative processes through mal-assimilation and derangement of nutrition, causing distressing dyspeptic symptoms and the following train of evils, weak heart with irregular action, anæmia, alarming dyspnœa, hemorrhoidal troubles and pulmonary difficulties. I have been compelled to reject men on account of various symptoms, evidently begotten of excess in this respect. The man who uses tobacco freely before breakfast is, to a certain extent, like the man who drinks before breakfast—he has his finger-board marked for the other country. I once rejected a friend of mine whose heart was acting very badly, and whose appearance was not gay and festive, telling him, as he was in the habit of smoking as many as seven cigars before breakfast, to make up his mind to quit, or when he left my office to go the undertaker's and have his measure taken. He accepted the warning, became temperate, and still lives.

In the matter of the use of liquors of various kinds, we are to sift details closely and judge accordingly, for we are

sometimes greeted with the answer: "Yes, I drink, but not much." Here the possibility comes in as with the man who could never understand why he got drunk, as he never took but one mouthful, till he measured his mouth one day and found that it chambered an even pint. No false modesty on our part should keep us from probing these cases to the bottom.

Likewise in all who give any past syphilitic history, the examination should be scrutinizing and thorough. I have lived long enough to see the baneful and fatal effects of this disease in twenty to thirty years after the original attack, more particularly in the grave cerebral lesions that have led to death. I have just dismissed a case of most grave cerebral trouble from this cause, in which almost profound coma, a deep stupor, blindness, deplopia, followed a well marked syphilitic history, fortunately relieved by the free use of iodide of potash. The man was but twenty. If he had been forty or past he would, in all probability, have gone on steadily to death.

Thus a brief general review points out the more important features of our medical duty and our especial practical relation to this great subject. It need not be pursued to minuter details, for they are the outgrowth of the general lines of investigation. Before closing this necessarily cursory study of the subject, it may be well to ask how far we are practically interested in its claims upon us and our families. Now, it is a well known fact that the profession of medicine brings to the greater part of its membership a good living, but no more—to some a scanty one; to others—the few—fame and large incomes; and the history of the major portion of these few is that the greater expenses necessitated by the surroundings leave to them at death nothing for their families but the barest income, perhaps their furniture, his books, a blessed name and kindly memories—but no more—very likely not even the home in which they lived in affluence, while the busy toiler worked, but the active brain and skilled hand is cold and so quiet, and with the deep sorrow comes shadow and suffering and struggling for the bare needs of life.

As an association we are laying the foundation of a work

which, when completed, is to give succor, rest and home to these stricken ones and smooth the rough places of life, but the accomplishment of the work lies in the future, and between now and then there may be many weary ones to whom relief must come in some form. Acting upon the principle for myself that a man is debtor to his family to make some suitable provision for them in case of his death before he has gathered from his labors a sufficiency to shield them from want, I have, for nearly twenty-five years, availed myself of the principle of life insurance and carried a modest policy, which, judiciously invested, would at least furnish a resource in part to keep them from immediate want. This much I conceive to be the duty of every physician to such an extent as will not make it a burden to him. To me oftentimes the mere knowledge of the fact that there was some provision made, has been a source of great comfort and satisfaction, and I would especially commend it to my younger professional brethren. I recollect one of my medical friends saying to me after he had been in great and imminent peril, within almost the sudden shadow of death, that the very consciousness of the fact that his life was insured kept coming to him, even in the hour of danger, as a consolation, that he could not even in his peril keep the thought away, and that the comfort of it steadied his brain and nerved his hand until he was guided into safety.

In conclusion, to show the safeguards that the law throws around investments of this class for the protection of the family interest, I quote briefly from Mr. Robert A. Maxwell's thirtieth annual report of the New York superintendent of insurance, the gist of a decision of the United States Supreme Court in the case of the Central Bank of Washington v. Hume, and Hume v. Central Bank of Washington, as delivered by Chief-Justice Fuller, Vol. 128, U. S. Supreme Court Reports, pages 196 to 212:

"It is a general rule that a life insurance policy and the money to become due under it belong the moment it is issued to the person named in it as beneficiary, and that there is no power in the person procuring the insurance, by any act of his,

by deed or will, to transfer to any other person the interest of the person named. Also, that a married man may rightfully devote a moderate portion of his earnings to insure his life and thus make reasonable provision for his family after his decease, without being thereby held to hinder, delay or defraud his creditors, provided no such fraudulent intent is shown to exist or must be necessarily inferred from the surrounding circumstances. Also, that the payment of premiums to a life insurance company by a married man who is insolvent at the time of the payment, in order to effect and keep alive a policy of insurance upon his own life made by his wife for the benefit of herself and their children, is not necessarily a fraudulent transfer of his property with intent to hinder, delay and defraud creditors, and in the absence of circumstances showing a fraudulent intent, his creditors after his decease will have no interest in the policy. Also, that in order to maintain an action on behalf of creditors of a deceased person against a life insurance company to recover back premiums alleged to have been fraudulently paid by the decedent while insolvent to the company in order to make provision for his wife and children, it must be alleged and proven that the company participated in the fraud."

Here we have the ægis of the law guarding every interest of the helpless one. It teaches its own moral, which all may properly and wisely heed.

SOME OBSERVATIONS MADE DURING A TRIP ABROAD.

BY JAMES GREY THOMAS, M. D., OF MOBILE,

Senior Counsellor of the Medical Association of the State of Alabama.

When requested by our president to become one of the reporters for this occasion, I felt some hesitancy in complying, as I was at that time contemplating a trip abroad; and not knowing how my stay might be lengthened, feared that I might not have the time to prepare a paper of sufficient interest to present to the consideration of this learned body.

As I was rather late in returning from Europe, I concluded it would be better for me, and perhaps of more interest to you, to give a general outline of what I saw, in a medical line while there, than to prepare a paper on some special subject.

Landing in Glasgow, the home of Leishman, MacEwen, McCall, Anderson and others, whose names are familiar to you all, I passed on to Edinburgh, the Athens of Scotland. I was there only a few days, but in that limited time saw many things of interest, among them the celebrated University and the Royal Infirmary, both magnificent structures, in beautiful order, and in the hands of the best physicians and surgeons of that city, such as Annandale, Duncan, Carmichael, Grainger Stewart, Rutherford, Argyll Robinson, Croom, &c. Three degrees are conferred by this University, viz.: Bachelor of Medicine (M. B.), Master in Surgery (C. M.), and Doctor of Medicine (M. D.). The degree of Master in Surgery is not conferred on any person, who does not at the same time obtain the degree of Bachelor of Medicine. No one is admitted to the degrees of Bachelor of Medicine and Master in Surgery, who has not been engaged in medical and surgical study for four years.

Arriving in Liverpool en route for Paris, which was my objective point, I presented a letter of introduction to the famous surgeon, Sir Reginald Harrison. He received me very courteously, and expressed his regret at not being able to show me through the Liverpool Infirmary, as it was then dismantled and undergoing repairs. He gave me letters to friends of his in London, which were of great service to me.

While in Paris I was so fortunate as to fall into the hands of an old friend, Dr. Edward Warren Bey, who was during the late war Surgeon-General of North Carolina, after the surrender Surgeon-General of the Egyptian army, but for the past fifteen years a resident of Paris, where he justly stands high in his profession, and does a large and lucrative practice. He introduced me to some and gave me letters to others of the leading physicians and surgeons of Paris.

In calling to present my letter to Dr. Charcot, the celebrated neurologist, I was greatly disappointed to find him absent from the city. I was more fortunate, however, in seeing Dr. Philippe Ricord, with whom I had a pleasant interview. He remarked to me that he was born in Baltimore, and was always glad to see Americans. At the time I saw him he was very feeble, and died soon after, at the ripe old age of eighty odd years. It is said that Dr. Ricord was not only a medical specialist of the first rank, but a man of cultivated mind and refined taste; he had a fine collection of works of art, and had a decided turn, if not for poetry, for graceful verse-making. Last summer he composed a quatrain in honor of Mr. Edison's visit to Paris. He was one of the recognized wits of the French Capital, and like Falstaff, not only witty in himself, but the cause of wit in others. His encounter with Cremieux, the time he was Minister of Finance, is well known. They met at a fancy dress ball, both being in the ordinary evening garb of civilized humanity, "You should have got yourself up as Plutus" (the god of wealth), said Ricord to the minister. "And you should have come as Mercury," was the retort.

I had the pleasure of meeting Dr. Brown-Sequard, the well known physiologist, who created such a stir in the medical world

by introducing his remedy for prolonging life. He seriously objects to the name of "Elixir of Life," and said it never came from him. He was very enthusiastic and seemed to have no doubt of the success of his discovery in proper hands; expressed himself as very anxious for the medical profession to give the remedy a fair trial on suitable subjects, being careful to prepare the fluid and use it according to his directions. I believe his investigations are still being pursued and published in the Archives of Physiology of Paris, but with what result I am not prepared to say. Evidence is found in ancient Chaldaic, Hebraic and Oriental literature, that relative products employed by Dr. Brown-Sequard, were in vogue as therapeutic agents, in the earliest times, even before the days of Moses and Rameses. In imperial Rome it is well known also that the same, as derived from the goat and wolf, were regarded as life-giving and strengthening, enabling those partaking thereof to sustain prolonged fatigue. They were employed for the relief of all forms of nervous disorders, besides the lassitude "incident to sexual excesses." It is said that they were the basis of the daily draughts taken by the notorious Messalina, wife of Emperor Claudius, and administered by her to her numerous lovers, in order to preserve their sexual vigor. It has long been known that a like practice has been carried on by the Cheyenne Indians, the best favored and bravest of all the tribes of the Rocky Mountains. The older Indians encouraging the eating of raw buffalo and antelope testes by young warriors, and maintained that the juice conferred increased power as regards bravery and sexual vigor. Various preparations were used by the ancients for sexual rejuvanescence—the principal one being the juice of the testicle of the wild boar—others used that from the dog, the bull, the beaver, the badger, the hare, &c. So you will see that Dr. Brown-Sequard's ideas are not original but based upon the ideas of others, who used and chronicled these remedies ages ago.

I was much pleased with my visit to the old and well known "Hospice de la Salpetriere." It is a very extensive and well kept institution, intended principally for old and incurable

women. Here Professor Charcot holds his famous clinics. He is an advocate for hypnotism and meets with wonderful success in controlling his patients through its agency. His electrical rooms are extensive and well supplied with every conceivable appliance for the treatment of diseases of the nervous system. In the absence of Dr. Charcot, his assistant kindly showed me through the wards, and I saw quite a number of cases of hysteria, hypochondriasis, rheumatism, neuralgia, &c., treated by static electricity, with very satisfactory results. In the electrical room there were frequently from thirty to forty patients undergoing electrization, at once, on insulated platforms. I saw several cases of locomotor ataxia, and some other nervous diseases treated by suspension, which afforded relief. The treatment consists in the suspension of the patient from one to five minutes, by means of the apparatus arranged by our distinguished countryman, Dr. Louis A. Sayre of New York, for the rectification of deformities of the vertebral column, while applying his plaster jacket. The suspension takes place every other day. At first one half minute, and increased a half minute daily, until from three to four minutes are reached. During the suspension the arms are frequently raised, that the traction upon the vertebral column may be increased. The treatment is carefully watched by the physician. As a number of details have been given through the medical journals, regarding the technique of this method, I consider it unnecessary to go further into detail. If suspension does not stretch the spinal cord, as some contend cannot be done, it mitigates the symptoms, in many instances, for soon after its use, we observe a marked improvement in gait, ataxia lessened, pains gradually diminished, bladder troubles relieved, and partial relief of impotence. Dr. Charcot and other eminent men advocate and practice this plan of treatment, and it certainly affords relief, but whether the relief will be permanent time alone will show. Patients who are much reduced in health, or the subjects of heart or lung disease, should not be submitted to this treatment. My experience with it is limited, but from recent observation I am ready to admit it as an important

factor in the treatment of locomotor ataxia. No medical man in Paris is better known or more beloved than Dr. Charcot.

Dr. Warren took me to the Pasteur Institute and introduced me to its founder, the distinguished biologist. The building was established by public subscription at a cost of fifty thousand dollars, and inaugurated the 14th of November, 1888. It is a beautiful modern structure—built of brick, with large rooms and fine laboratories. Time will not permit of a full description of the building. There is a large stable for animals put on trial; a kennel, where each dog has his special cage, and can be fed and watched without coming in contact with him. By the side of the kennel is a building reserved for hydrophobic rabbits. In the garden is a hennery, an aviary, and a stable for large animals, all well constructed and kept scrupulously clean. The Institute contains fifty workers, besides Mr. Pasteur and his valuable assistants, who are some of the most eminent medical men in Paris. I saw from one hundred and fifty to two hundred persons inoculated each day. They were from all parts of the world. When Pasteur announced to the Academy of Science of Paris, that he had discovered a method to prevent the occurrence of hydrophobia after a bite of a rabid animal, it is not to be wondered at that the medical and public press rang with the news. Many patients from all countries flocked to his laboratory for treatment, but quite a number of scientific men expressed their doubts as to its value. In Paris there are some even now, who vehemently deny that there is any efficacy in this remedy. Among them Dr. Lutaud, a distinguished gynecologist, chief editor of the Journal of Medicine of Paris, and translator into French of Dr. T. Gaillard Thomas' work on diseases of women. Since 1885 the number of people who have submitted themselves to the preventive treatment for hydrophobia exceeds nine thousand.

Over twenty antirabic institutes have been built in various parts of the world, in which patients have been successfully inoculated by independent operators. From the data collected

in the statistics published by the directors of these establishments, and others, it is possible now to form a correct opinion as to the value of Pasteur's treatment. These show that where persons are bitten by a rabid animal and are not inoculated, about fifteen per cent die. Of those who are treated, the mortality is less than two per cent. It is not my purpose to enter into a description of the important clinical phenomena of hydrophobia, nor the study of localization of the virus in man and animals, nor the mode of obtaining the virus, as it would consume more time than is allotted me.

But in passing, it may perhaps be interesting to hear how complications, such as abscesses, erysipilas, syphilis, &c., are avoided in these injections. In the first place, the syringes in use are carefully sterilized each day by prolonged boiling. After each injection the needle is dipped into oil heated to a temperature of 105° to 110° centigrade, thus providing against the inoculation of any disease. The material for injection is proven beyond doubt to be perfectly free from all septic material. It consists of about one-half a cubic centimeter of spinal cord properly prepared and two cubic centimeters of sterilized beef tea. The injections are made into the subcutaneous tissue of the abdomen. On the second or third day after inoculation, the patient occasionally complains of a little tenderness, accompanied by redness, which entirely disappears on the application of a poultice, every night, after a warm bath. They feel no other unpleasant effects whatever, during or after the treatment. The unwearied care, patience and intelligence exhibited in the smallest detail of the work carried on by Pasteur and his assistants, seems to me cannot fail to satisfy all inquirers after truth, of the honesty of the originator of this method of treatment. Humanity owes a debt of gratitude to Pasteur for his splendid scientific researches and achievements, and his name should rank with Jenner's as one of the world's greatest benefactors. His broken health and paralyzed condition show the effect of his arduous labors in the interest of science. Though not a medical man, he has taught that profession a great lesson—a lesson which many scientific men

had in vain tried to enforce before him. It is that, although the healing art must necessarily make use of the data supplied to it by clinical observation ; yet the present and future progress of medicine is chiefly due to the application of experimental methods to its study—the most important of these methods consisting in experimenting upon the lower animals. There is nothing better established in science than the existence of rabies, both in man and the lower animals. The investigations of careful and conservative experts, such as Mr. Victor Horsley, support the views of Pasteur. Those who deny its value should first show themselves capable of judging experimental work, and cease juggling with figures or work themselves into rhetorical fury over questions which they do not understand.

During my stay in Paris I was a constant attendant at the clinics of Dr. Apostoli. They are held three times a week on rue du Jour, consuming the entire evening. Usually there are from twenty to thirty patients treated ; each case is carefully diagnosed and placed on the record book, which is always open for inspection. I met at these clinics, physicians from all parts of the world—some came there doubting, but went away convinced of the efficacy of his electrical treatment.

Dr. Apostoli is a polished and courteous gentleman, and his pleasant manner puts you at once at ease. Any physician is allowed to examine his cases, and he never seems to grow tired or impatient in showing and explaining his plan of treatment. The diseases treated were, fibroids of the uterus, hypertrophy of the uterus, endometritis, chronic metritis, ulcerations of the neck of the uterus, ovaralgia, menorrhagia, &c. I saw him relieve very promptly several cases of bleeding fibroids of the womb, by using the intra-uterine, the positive, which is the anti-congestive and hæmostatic pole, the negative pole, on the abdomen. A seance of about five minutes, one application was all that was necessary. Cases of obstinate neuralgia in the ovarian region (some cases where the ovaries had been removed), were given relief. The woman who was the first case of uterine fibroids ever treated at his clinic, was shown us. A plaster

cast of the tumor, when treatment began, was in the room. The measurement of it was given, which I do not remember, but it was enormous, probably nine or ten inches in diameter. When I saw her it had been reduced to about the size of an orange, and caused no inconvenience whatever. Numerous other cases might be cited.

His armamentarium consists of a Gaiffe's galvanic and faradic battery, a collector, Gaiffe's galvanometer, intra-uterine electrodes for both currents, and one for carrying both currents, and one for carrying both the positive and negative of the induced current within the uterus; bulbous charcoal-pointed electrodes of various sizes for galvano-caustic application; intra-uterine platinum electrodes, and large bulbous vaginal and rectal electrodes. The electrode for the abdomen is made of potter's clay, in which the metal is slightly embedded. The instruments, before being used, are placed in some antiseptic solution. The vagina is well irrigated before and after each application of electricity, creolin mixture being generally used. The battery used by Dr. Apostoli, is a Gaiffe's cabinet battery of thirty-six cells.

I bought, by his advice, a Gaiffe's portable battery, twenty-four cells, and I find that it fulfils every requirement. I have treated successfully several cases of menorrhagia, subinvolution of the womb, chronic metritis and others, and have now under treatment several cases of uterine fibroids, which are doing well, but have not been under treatment a sufficient length of time to show any very marked result. I hope, at some later date, to report further on these cases.

Dr. Apostoli's method in the treatment of uterine and peri-uterine diseases has taken its deserved place in gynecological therapeutics, and the results achieved not only in Europe, but in this country, must convince any unprejudiced mind of its value and importance. It is needless to say that the old way of treating with caustics, douches, curetting, and minor surgical operations, is tedious and often of no avail. Any method, therefore, which enables us to treat most safely and successfully these ailments, and at the same time to render unnecessary in

the great majority of cases, those graver mutilating operations that have of late years become so fashionable, "is a consummation devoutly to be wished." In order to insure success in this treatment, it is very necessary that one should have a complete set of instruments, and should thoroughly understand their application. Results far in advance of anything that a generation ago the most enthusiastic advocates had ever hoped for, have been accomplished by Apostoli and his followers.

Apostoli says, "that every therapeutic innovation which runs counter to prejudices and interest, must meet with opposition, and has to bear the brunt of hastily formed opinions, and this has been the lot of my electrical treatment of uterine fibroids, and I am happy that it should be so, since frank controversy will bring light upon the subject and strengthen my position." He does not contend that electro-therepy is a "cure all," nor will ever entirely supplant the knife, but insists that it is a successful means of treating fibroid tumors, and that, in future, it will be the duty of the sergeon, in many cases, before resorting to the knife, to give it a thorough trial.

Apostoli has doubtless rung the death-knell of indiscriminate laparatomy, and has hoisted the flag of conservative gynecology. Among the eminent surgeons in London who use the Apostoli method, are Sir Spencer Wells, Prof. Playfair, Drs. Thomas and Skene Keith. Dr. Thomas Keith says, "what I now plead for, is that for a time, all bloody operations for the treatment of uterine fibroids should cease, and that Dr. Apostoli's treatment, as practiced by him, should have a fair trial. Hysterotomy, remember, which is performed every day for a complaint that rarely of itself shortens life, kills every fourth or fifth woman, who is subjected to it. This mortality must cease. It is not a question of surgery, it is a question of humanity. I would give something to have back again those sixty-four women that I did hysterotomy for, that I might have a trial of Apostoli's treatment on them." When such a man as Keith, one who has achieved such remarkable success in the treatment of uterine fibroids, deliberately denounces hysterotomy in favor of Apostoli's treatment, is it not time for

us to consider well before using the knife? Keith also says, "that discredit has been brought upon this method of treatment, by those whose experience has been so limited, and too imperfect to carry weight with the skeptical, but that it is the right treatment, and our patients must get it, however great the inconvenience and monotony of it may be to ourselves." And he further says, "our results (his and his sons) after hysterotomy show the lowest mortality of any yet recorded, and though we have had but a single death, after removal of ovaries, for uterine fibroids, in almost one hundred operations, we reject even the minor operations in favor of Apostoli's method, and we reject hysterotomy altogether on account of the great mortality that has hitherto attended it all over the world." Other physicians of repute have adopted this plan of treatment in their practice. Such men as Berruti of Italy, Wright of Glasgow, Lapthorn Smith of Canada, Engelmann of St. Louis, Martin of Chicago, Massey of Philadelphia, Goelet of New York, McGinnis, electrician of woman's hospital of New York. Many other American gynecologists are waking to the necessity of a more conservative method, and are gradually abandoning the knife in the majority of cases.

Electricity has become a recognized therapeutic agent, and can therefore no longer be ignored by the general profession. The promise of its future is great, especially in certain diseases, which resist ordinary remedial measures. Nor should we doubt this, when we think of the large rôle played by it in nature's phenomena. What electricity is has not yet indeed been determined, but one of the greatest scientists of our time has said, in view of recent discoveries, we shall probably know all about it before the end of this century. We know, however, a good deal about its operations, and must go on working in the mean time with the light we have, looking forward to the fuller illumination which will unveil the mystery, and clear away existing obscurities. At present, we only know that electricity is a potent force in nature, and its possibilities are limitless. I believe it was Erb who said, we might as well do away with the bromides and arsenic in functional nervous

diseases, because we do not understand the theory of their action, as to abandon electricity, because of our ignorance of the laws underlying its influence. The time will probably come when it will be considered as necessary to test the electrical condition of the body, as to take the temperature in disease.

In bringing my remarks to a close in regard to Apostoli's treatment, I will quote from one who knows him well, Dr. Horatia R. Bigelow, who says: "The name of Apostoli will always be associated in the minds of gynecologists with a plan of treatment which he, more than all others has elaborated, differentiated, and systematized. From an examination of the many and varied diseases which seek surcease from suffering at his hands, lessons have been learned which must bear fruit as the ages come and go. Others will take up the work, and round it out; others may improve upon it, may clear up some of the doubtful points that now surround it; others will add to it wealth of clinical detail, but the glory of it will be Apostoli's long after time has put an end to unfriendly criticism or to personal rancor—and when his name, too, shall be added to those who have created new eras in scientific progress."

The Clinque d'Accouchment et de Gynecologie, is the hospital over which Professor Tarnier presides. The wards are filled with interesting and instructive cases, making it a splendid school in which to study obstetrics and gynecology. I had there the opportunity of witnessing the application of Farnier's forceps. In this hospital they use the incubator for rearing prematurely born infants. I afterwards found it used in the Rotunda Lying-in Hospital of Dublin. It is a warmly lined and padded box, with a glass top, shaped something like a cradle. Is heated artificially and the temperature regulated by the thermometer. I was not favorably impressed with the value of it. At the following hospitals I was a frequent visitor: "Hotel Dieu," St. Louis, Lariboisiere, Tenon, Neckar, &c., and witnessed some very important operations, excision of tongue, external urethotomy, excision of inferior maxillary, removal of ovaries, lithotomy, amputations, &c. Thermocautery is frequently used by the surgeons.

In the hospital St. Louis, I was particularly interested in Dr. Fournier's wards, where there were many cases of skin diseases rarely met with; among them one of leprosy. These hospitals are models of system and neatness. The French surgeons are very skilful, careful, and observe strictly all antiseptic precautions.

Wishing to see something of the hospitals and medical men of London and Dublin, the last two months of my stay were spent in those cities. At that season of the year, August and September, many of the older medical men were out of the city, taking their annual vacations; but their places were well filled with young graduates, who exhibited wonderful skill for men of their years, which goes to prove how thorough is the training received in the colleges and hospitals abroad. I saw surgical operations every day during my stay in London (Sunday excepted), but as I have already claimed your attention so long, will not enter into details; will only mention a few of the most important ones, viz: Extra-uterine pregnancy, by Dr. Treves of London Hospital; osteotomy, by Dr. Watson Cheyne of King's College Hospital; supra-pubic cystotomy, by Dr. Groden of King's College Hospital; excision of knee and colotomy, by Mr. Pitts of St. Thomas' Hospital; scraping of uterus for cancer, by Dr. Hayes of King's College Hospital; removal of thyroid isthmus, a difficult operation, but performed by one of the young assistants at Royal Free Hospital, with the skill and composure that would have reflected credit on an old, experienced surgeon. London is amply provided with colleges, also hospitals, both general and special. Most of the medical colleges have hospitals attached, offering fine facilities for clinical teaching to the students. In the colleges it takes from four to six years to complete the course—never less than four years.

At the Brompton Hospital, a spacious and richly endowed establishment for consumptives, what impressed me most forcibly was the almost entire discardal of medicines of any kind, relying mainly upon alimentation and hygienic measures.

I had never seen massage tried in America as a remedial

agent, but had the opportunity of doing so in the "West End Hospital," which is under the patronage of Her Royal Highness, the Princess of Wales. It is for the relief of those who are suffering from nervous disorders, especially for the treatment of young paralyzed children. The good work of this hospital is carried on with zeal and efficiency. Its various departments are in fine working order; electrical, gymnastic and other apparatus are provided. Massage and electricity are the agencies mostly employed in the treatment of the patients. The institution is well supplied with masseurs and masseuses. The best results of this treatment were seen in corea, epilepsy, paralysis, neuralgia, rheumatism, hysteria and hypochondriasis. Prior to my visit to this hospital I had been skeptical about the massage treatment; but from the results seen I am persuaded that much good is accomplished by it, and that it should not be lightly regarded, simply because it has fallen into the hands of quacks in this country. It is now used both in Europe and America by some of the most eminent medical men. Trained and intelligent persons alone should apply it, and then under the directions of the physician. There are many other hospitals in London, so numerous indeed, that it is impossible to give them even a passing mention. I doubt if there is another city in the world so well supplied with them or where they are so liberally supported.

Another subject on which my views were radically changed by my stay in London, was the character of its people. I had always believed that the English as a nation were selfish, cold-blooded and unapproachable, but never was I so kindly received, courteously treated and hospitably entertained as by some of the medical men of London; markedly, Mr. Arthur Durham, Chief Surgeon of Guy's Hospital; Drs. Thomas and Skene Keith, and Sir Morell Mackenzie. I found the latter simple and unaffected in his manner. His countenance bears the impress of great intelligence, firmness and will-power. It is said, that when he—then plain Dr. Mackenzie—was called in consultation to see the late Emperor Frederick of Germany, his friends feared that the rank of the patient might so affect

him, as to disturb his judgment, whereupon, an English medical journal paid him the compliment of saying, "that Dr. Mackenzie would look into the Emperor's throat with eyes as clear, as discerning, as if it were the throat of a Billingsgate fish wife." I was sorry to have to leave such a field of observation and study, as there is in London, but having heard so much of the hospitals in Dublin, I felt that I could not leave Europe satisfied without seeing them. Found them all they had been represented. The Rotunda is the largest lying-in hospital in the United Kingdom—the obstetrical cases numbering, indoor and out, about three thousand annually. Among the general hospitals in Dublin, which are numerous, the "Mater Misericordiæ" is the largest and most important. Here, as well as in London, I saw the cold water treatment used, in a number of cases of typhoid fever, with good results. Among numerous operations seen in the hospitals of Dublin, that of osteotomy was of peculiar interest to me. I had then never seen it in America, but on my return to New York found the surgeons there practicing it. Osteotomy is now an operation which every practical surgeon can undertake. It has until recently been only performed by the specialist. I have here two cuts of a little patient, one before, the other after, the operation for genu valgu, or knock-knee, as performed by Mr. Ormsby of Dublin. No where is the standard of medical education higher than in Dublin. The Trinity (medical) College of that city has a world-wide reputation. A person must first have obtained the degree of Master of Arts before being allowed to matriculate in it. As in Edingburgh and London, he is required to pursue a course of studies for four years or more. Any medical man from America, visiting Europe, could not fail to be impressed with the elevated position occupied by their professional brethren in that country a position to which their acquirements justly entitle them, and which they highly adorn. There is a dignity and independence about them, which is well worthy of our imitation. They do not seek patronage or curry public favor. Even the physician's sign, if they have one at all, which many do not,

is so small and unpretentious, unless one is looking carefully it will escape notice; they are in fact nothing more than door plates. The medical men are looked up to by the laity, who properly value and reward their services. Max O'Reil, the author, after a visit to London, remarked, that the greatest men he saw there, were the medical professors; next to them, the medical students. An instance, which was to me strikingly illustrative of the high esteem in which medical men are held in England, and when one rises to eminence in that profession, the honored place he holds even after death, in the hearts of the people, is that Sir Astley Cooper, the great surgeon, was thought worthy to have placed to his memory, a statue in St. Paul's Cathedral, by the side of the tombs of those idols of the nation—the heroes of great battles by sea and land, Lord Nelson, and the Duke of Wellington. From this statue I copied the following eloquent inscription:

"Animated by fervent attachment to the science and practice of his profession, it was the duty of his life to augment and exemplify the resources of surgery, and by most assiduous and successful application of his time and talents, his name became known and honored, not only in his own country, but in every land."

THERAPEUTICS OF THE ENDOMETRIUM.

BY ISAAC LAFAYETTE WATKINS, M. D., OF MONTGOMERY,

Member of the Medical Association of the State of Alabama.

The rules of the Association make it the duty of the President to assign such subjects to the regular reporters as are of some definite interest or relation to the State.

It also says "nor could any fault be found with general reports on recent advances on any special department of medicine or in our knowledge of special disease."

In a body like this, composed almost entirely of gentlemen engaged in general practice, and whose time is consumed by the routine of the general practitioner, objection will not be made to spending a short time listening to a few remarks on this very important subject. Indeed, with the rapid progress in gynecology it would be a good plan to include this among the subjects of the regular reporters.

A reasonable discussion on therapeutics presupposes a morbid anatomical condition, therefore, before we can proceed with the therapeutics of the endometrium, we must recognize the pathological changes so frequently encountered. The writer takes it for granted that you are all familiar with those changes.

As I have stated, the limited time allowed, will not permit me to do more than to make a mere mention of the pathology of this organ.

The order in which I propose to discuss this subject is the location of the organ, the method of reaching it with remedies, both by local and general treatment, and the remedies in popular use at the present day.

It must not be forgotten that no other subject probably in

medicine is as imperfectly understood as the one before us. The assiduity with which gynecologists pursue the novel idea concerning the physiology of the female organs, proves the truth of this assertion. We cannot expect to give anything like an invariable rule for the guidance of the novice in gynecology.

By endometrium we mean the lining membrane of the cervix, uterus and Fallopian tubes. Anatomically speaking this is not correct, since the most recent anatomists say the mucus lining of the cervical canal is thicker than that of the body; it is firm, fibrous and covered with ciliated epithelium. The mucus membrane of the body is filled with glands of the tubular variety, which penetrate through its entire thickness. Mr. Leopold regards it a lymphatic surface which contains no special lymphatic vessels, but consists of lymph sinuses covered with endo-thelium. It is this part of the uterine mucosa which is thrown off during menstruation. The lining membrane of the cervix being a granular organ, and therefore secretive in its functions, takes no part in menstruation. The surface of this membrane, (the endometrium) says Jacobi, is covered with blood during menstruation. The pathology of this organ is without a parallel in the human body owing to its peculiar functions. During the thirteen years of quiet life, it is rudimentary and plays but an insignificant part. At puberty its functions begin and with them great suffering to a large number of women.

The endometrium is frequently attacked by benign and malignant disease. It is often difficult to determine as to the character of the vegetations of this membrane; whether they are benign or malignant. Nor is it always easy to say just where acute inflammation ends and *chronic* inflammation begins. However imperfect our knowledge may be of the different conditions, it is necessary to have some classification of these pathological changes.

Schmidt enumerates the growths that may be found, "chroni-hyperplasia, lympho-sarcomatous growths, mixomatous growths, sarcomatous growths, adanomatous growths, papillomatous and carsenomatous growths."

That acute inflammation is frequently met, is seriously questioned by some authorities, although a majority hold that it is very common. It is traumatic, as when produced by the curette or the sound. Incision of the cervix for stenosis or intra-uterine injections, are frequent causes. The extension of inflammatory diseases of the vagina, exenthematous fevers, retained material in the uterus, are not infrequently the cause of endometritis.

Chronic endometritis is a very common disease. It is frequently referred to as chronic uterine catarrh or leucorrhea. In this Southern country we are consulted for this condition more than any other one trouble. It is divided by most writers on the subject as corporal endometritis and cervical endometritis. This division is incorrect so far as it pertains to the cervix. It is very frequently designated as cervical catarrh, cervical endocervicitis. Without entering into the merits or demerits of either of these names, I shall leave to your discretion the selection of the most appropriate.

Syphilitic ulceration is a condition much more frequently met than is recognized. Many of the so-called cancers of this organ is nothing more than a syphilitic ulceration. In many advanced cases it is impossible to make the differential diagnosis without the microscope. I saw such a case in consultation with friends a short time ago. The question as to syphilis was raised, but no microscopical examination was made. The woman had been a great sufferer from constitutional syphilis. Uterine fungosities so frequently met with are the result of some one of the conditions mentioned above.

In 1885 Mary P. Jacobi obtained opinions of forty-five contemporary authorities in regard to the propriety and value of intra-uterine medication. Of these, forty were expressed in favor and five against it. In 1887, twenty four opinions were expressed publicly on the same subject. Eighteen were in favor and six in opposition. Among the six were Doctors Emmet and Thomas of New York. If we shall regard these statistics as correct and consider the high authority on the negative side, we can but acknowledge that local treatment is

growing less popular. This difference of opinion is due to the idea that applications to the endometrium were not without danger; and that the endometrium was not the seat of disease. Dr. Emmet, referring all inflammatory changes to the uterine adnexia, and Dr. Thomas to flexion or version of the uterus. These differences will exist just so long as physiology of the female organs of generation remain in such obscurity.

The same difficulty combats us when we try to determine the frequency of disease of this membrane. Some regarding all intra-uterine inflammations as secondary, as peri uterine inflammation (cellulitis, Emmet) or mechanical condition as displacements, (Thomas), and others regarding disease of the endometrium as a trifling affair. A third class of false teachers, of whom I will speak, and who are equally antagonistic to the progress of true science, are those who concentrate all their attentions on the endometrium and overlook the morbid conditions of the ovaries and tubes, peri-uterine-peritoneum and connective tissue, which are much more important.

In a series of articles by Mary P. Jacobi on this subject in the journal of obstetrics, she divides the physiological functions of the utero-ovarian system into three cycles—the menstrual, the parturient and the reproductive cycle, which begins at puberty and ends with the menopause. Based on this knowledge, she gives a detailed account of the immediate effects of applications to the endometrium.

She regards local treatment as essentially surgical. There is really very little difference in the caustic and curette in fungous endometritis. Superficial diseased tissue of the mucus membrane in both instances, are partially destroyed, to be replaced again at the next menstrual period with healthy membrane.

Remedies in popular use are legion. The zinc preparations, nitrate of silver, tanic acid, glycerine, tr. iodine, carbolic acid, nitric acid, chromic acid, boracic acid, salicylic acid, iodoform and iodoform gauze, the dull and sharp curette and electricity. All of these agents have their advo-

cates. In making a selection from this list, owing to an unnecessary timidity, some recommend that we begin with the milder remedies and first establish a tolerance before we apply the stronger ones to the intra-uterine surface. I see no good reason for this. The endometrium is susceptible of radical treatment, and when you have settled the diagnosis on this organ, it is better to resort to the most positive remedies. The reason for this is, it is inconvenient to get the remedial agent on the diseased location, and disagreeable to the patient. I am in the habit of applying a small amount of 4 per cent. solution of cocaine to the cervix when the currette or caustics are to be used. This remedy is especially useful when it is necessary to dilate the cervix before you can enter the uterine cavity with the applicator.

Dilatation may be effected by incision, by tents, by graduated sound and by the dilator with diverging blades constructed on the order of a glove stretcher. This is a very important step in the operation. When neglected, you are liable to be deceived in your treatment, and frequently form erroneous conclusions. Before making the application it is necessary to clear the membrane of all the mucus, otherwise it will be very uncertain as to the effect of the remedy. With patient on the left side and an assistant to manage a Sims speculum, I steady the uterus with a tenaculum, and by means of a small applicator—the most convenient as well as inexpensive material for this, is the stylet from a rubber catheter, wrapped with a piece of cotton and the end dipped into the fluid—it is carried to any spot on the interior of the organ that it is desirable to reach. It is very essential to see that the medicine is not pressed from the applicator on its passage through the cervix. To avoid this I use an iron tube devised by Dr. Palmer of Cincinnati, which resembles, somewhat, an ear speculum with a handle attached. It has a slight curve which enables you to pass it into the cervix to any extent without much trouble. The applicator is made to pass through this tube. Another mode of application recommended is to

take a sharp pointed glass tube bent in the shape of a sound, with a rubber bulb on the end on the order of a medicine dropper. Few drops of the fluid are drawn up into the tube, it is introduced into the uterus, and by pressing on the bulb, it may be deposited at any point on the endometrium. This should only be done when there is sufficient dilatation to allow the fluid to escape from the cavity.

The zinc preparations, except as caustics, are very rarely used in the uterus. Iodine in the form of Churchill's tincture, or in combination with carbolic acid, known as Battey's formula, is more generally used now than any other remedy.

It is a valuable remedy in endometritis. Two applications a month, and frequently one, is as often as this remedy should be applied. For the treatment of obstinate uterine catarrh, Dr. Jacobi makes one applicatlon a month, either of iodized phenol, equal parts of carbolic acid and glycerine, or the pure carbolic acid. Munde is a strong advocate for nitric acid. He says "the milder applications, such as iodine sol. silver, or even the pure carbolic acid, are useless." It is very essential that the cervix be sufficiently patulous to allow free exit to all mucus.

The frequency of the applications of these escharotics will depend on the duration of the eschar—the stronger ones requiring a longer time before the membrane sloughs. With nitric acid five to seven days, iodized phenol three or four days, tincture of iodine two days, is about the time required for this. It is necessary for the sloughs to be removed even before the milder applications can be made. These may be kept up for two weeks, when the patient should be allowed to rest from treatment altogether, and allow the raw surfaces to get well, before time to make another application of the caustics. A very frequent condition met with, and one that is as often the cause of sterility, as any other, is dilatation of the cervix with stenosis of the internal and external os. To relieve this, make two lateral incisions, about half an inch deep in the cervix, curette the cavity thoroughly and apply pure nitric acid. This should be done at home, and the patient kept in bed for four or five days to lessen the danger of inflammation.

About three years ago George J. Englemen, of St. Louis, published a series of articles in which he advocated what he called "The dry Treatment in Gynecology." I have no experience with this special line of remedies. It consists in the application of an impalpable powder to the vagina or endometrium, by means of absorbent cotton or a powder blower, such as is used in the larnyx. In the American Journal of Obstetrics, page 565, of 1887, will be found a full account of this treatment, with the mode of application.

Drs. Frisch and Polk of New York are advocates for what they call treatment by drainage. It consists in dilating the cervix and irrigating the uterus with warm carbolized water and packing the cavity loosely with iodoform guaze and leaving it for twenty-four hours. Remove the dressing, irrigate the uterus and introduce fresh guaze. This, doubtless, is a good remedy, when the curette had been used for fungosities. It will secure drainage and prevent the absorption of septic materials. Dr. Frisch recommends that the tampon be used after removing remnants of secundies; and, during the puerperium complicated by septic endometritis, that it is better to pack the uterus with iodoform guaze than to resort to injections. After any surgical procedure involving to a great extent the tissues of the endometrium, it is well to secure drainage through this medium.

The curette has been, since its invention, the subject of many eulogies, and on the other hand, the victim of many adverse criticisms. Recamier, who first invented the curette with sharp edges, did much towards establishing an unsavory reputation for the instrument. It remained for the inimitable Sims, with his wire curette, to arrest in a very large measure all unfavorable criticisms of the instrument and establish one of the most useful therapeutic agents in the hands of the gynecologist, both as a means of diagnosis and remedy. It is frequently necessary before a diagnosis can be made, to have a microscopic view of a portion of the interior of the organ. To accomplish this a curette is required. When it is only desirable to make a partial application of the instrument it

may be done in the office, but when it is desirable to curette thoroughly, the interior of the uterus, it should be done at the patient's home. The indications for its use are where we have a menorrhagia or leucorrhea that will not yield to milder agents. The manner of its use is :—the patient on the left side, with a Sims speculum the cervix is exposed, the anterior lip seized from the inside with a tenaculum and drawn gently downwards sufficiently to straighten the canal. The instrument, with the proper curve, may, with very little force, be passed through the cervix. As it passes over the mucosa, the peculiar sensation of rough or smooth surface imparted to the finger is quite distinct, and many times the diagnosis is made even before the debris begins to escape. When abortion is suspected, the sharp curette should be used, as it is more difficult to remove the membrane or retained placenta than the ordinary vegetations of the endometrium. After the use of the instrument, it is a good plan to use some one of the antiseptics mentioned above. In cancerous degeneration of the endometrium, when there is much hemorrhage or pain, the curette will frequently benefit both symptoms. Stubborn cases of catarrh are frequently treated with the curette, followed by nitric acid. This instrument should be used but once a month. At each sitting the entire interior of the organ should be scraped, as it is desirable to make the fewest number of applications.

My paper has already exceeded the space that I had intended to occupy, but it would be imcomplete to stop without saying something on the application of electricity.

In electricity, we have, indeed, a friend. The dawning of a new era is upon us. The scalpel and the caustics are becoming circumscribed in their sphere of usefulness. It is, at times, a substitute for the curette and caustic solutions, supplying instead either an alkali or acid caustic which may be kept under absolute control. Just where this agent is most beneficial in gynecology, I am unable to say. Dr. Jacobi says the effects of electricity on the mucosa is very similar to that of the chemical caustics--forming

an eschar, but with much less violence done to the submucus tissue. We have sloughing of the endometrium and the alterative influence of a concentrated current on the submucus tissue. We have this statement from Rockwell: "It is the chemical galvano-cauterization and not the electrolysis in intra-uterine applications in cases of endometritis, and that the beneficial effects are not due to the alkali, and acid is evident from the fact that when the ordinary acid or alkali is applied to the body, eschares of the same degree are not formed." Its physiology is very imperfectly understood. As yet the necessary paraphernalia to put into use this valuable remedy is very much in the way of its general use. Batteries are unhandy and frequently out of repair and can be relied on only when constructed in a stationary cabinet. This makes it necessary to treat patients in the office. According to the recommendation of Apostoli, the patient should not be allowed to go around for two hours after a moderate dose of electricity, and when the higher currents are used they should be compelled to remain in bed for two or three days. This remedy, like other valuable remedies, is frequently decried by men who have tried it imperfectly without complying with the detail of its technique. Accidents have occurred from allowing patients to go directly home after being subjected to strong currents. Failures have resulted from imperfect application of weak currents, in the treatment of fibroids and endometritis.

It is no longer necessary for me to quote the distinguished authorities who are engaged in this work to satisfy myself as to the efficacy of this agent. I have been engaged in its application for about twelve months.

Endometritis-hemorrhagica is more quickly relieved by this than by any other remedy. For this it is necessary that the electrode charged to from thirty to fifty miliampers comes in contact with every vegetation at each sitting. This will secure a shrinkage and consequent sloughing, and in due time a healthy base membrane. Its tonic influence over the muscular fibre of the uterus is an element of no mean proportion.

Whether Tripier is correct when he says it is a circulatory drainage, or whether it is due to the influence on the muscular fibre of the organ, I will not attempt to say, but as a preventive of the various pathological conditions dependent on subinvolution of the uterus, it has no equal. The various neoplasms of the uterus that can not be removed with the knife, without danger to life, may be cured symtomatically, and in many cases removed entirely by electricity. Subperitoneal fibroids and fibro-systic tumors of the uterus are the least amenable to this treatment, as it is difficult to pass the current through them.

Dr. Smith, of Montreal, has reported a few cases of epitheloma of the cervix successfully treated by the positive current to the endometrium. My experience with this remedy in these cases is unsatisfactory.

SOME THOUGHTS ON OUR MODERN THERAPEUTICS.

BY JAMES ANTHONY WILKINSON, M. D., OF FLOMATON,

Senior Counsellor of the Medical Association of the State of Alabama.

If we briefly attempt to indicate the tendency of modern therapeutics we may say it is to breadth. The therapeutist receives remedial tribute from every quarter of the globe, from all peoples and from the three grand kingdoms of nature, as well as through chemistry, and the latter now gives some promise of eventually furnishing therapeutists with remedies noted for minuteness of dose, promptness of action, safe and reliable. If this be deemed over-sanguine the alkaloids may be noted as evidence, and as a guarantee of what may be in store. Less than a century ago alkaloids were unknown in medicine, but now more than one hundred natural alkaloids are enumerated, besides those denominated artificial.

Modern therapeutists have introduced many new medicinal substances, most of which are anodyne, hypnotic or antiseptic in character. To the anodyne class belong the many drugs which possess antiseptic or antithermic properties, some of which have gained a little reputation more through the commercial spirit of those interested in their manufacture, than from the possession of any well demonstrated curative property.

Since the clinical thermometer has come into general use, accurate temperature records have been kept in all grave diseases, throughout the civilized world; through these reports the entire army of physicians has been impressed with the frequency of hyperpyrexia in fatal cases, and the belief has steadily grown, (though not of recent birth,) that if methods or

remedies can be used to reduce the temperature of the patient, a long step forward will be made.

Acting on this idea of antipyresis, the chemists have been industriously offering us new agents during the past decade, distinguished by their reliability as antithermics, and the profession has not been slow to make use of them; sometimes it has seemed to me as much because of their novelty as through a knowledge of their physiological action.

I am aware that it is easier to tear down than to build up, to criticise than to offer new theories of disease that may be tenable; easier to condemn an existing remedy than to discover one of equal merit, but if we know the dangers or discomforts attending the use of some methods or remedies, our knowledge, while humbler, may be as serviceable as instituting a new and successful line of treatment. My own observations have convinced me that we are at least occasionally making too free use of the class of remedies known as antipyretics. While in fevers we may and do produce an antithermic effect by their use, yet in the majority of cases I have failed to see the natural history of the disease shortened, or any very favorable permanent effect.

They can undoubtedly be called antithermics and analgesics, but only in exceptional cases can they be credited with curative properties, in fevers. If we were to assume in a given case of fever that the high temperature was due to heat, retention and not over production, the use of antipyretics or antithermics might be clearly indicated, because their free diaphoretic action would speedily cause heat loss. High temperature is not of itself very dangerous in the adult. Is it not in febrile conditions the result of increased tissue change, or does not nature eliminate the fever poison through fever?

In support (in part at least) of these views, I offer the following quotations. (Prof. Erlich, Med. Rec. July, 1888:)

1st. This group of antipyretics will lower temperature, but cause a retardation of the excretory functions of the body and a retention of effete products.

2nd. They do not modify the intensity nor shorten the duration of disease, but tend to prolong the symptoms.

3d. Fall of temperature is temporary and is generally followed by higher. . . . .

4th. Their use gives a higher death rate. . . .

A. Robin, of Paris: ". . . To sum up, it (antipyrine) belongs to that class of remedies which diminishes tissue waste and is a depressor of nervous activity, and I consider it of very doubtful use in fevers, as it does not favor the oxidation of disintegrated products."

Prof. Porter says of antipyrine, antifebrin, thaelin and others of this class, "their action is quite similar; . . . . their physiological action has not yet been demonstrated in reducing temperature . . . In large doses they produce a rapid and marked parenchymatous metamorphosis of the liver and kidneys, followed by albumen and casts in the urine. They are also thought to have a direct depressing effect on the medullary and spinal centres. This being true, is not their antipyretic action due to their causing a farther increase in the functional and organic metamorphosis of the protoplasmic elements of the body which disturbs still more the physiological processes of the liver and kidneys and other excretory organs, and thus causes a greater accumulation of effete and toxic matter in the blood until . . . a state of general depression is produced . . . simulating collapse, during which temperature falls."

L. Brunton—"I must indicate a possible source of danger from their continued use. . . employment of narcotics . . is apt to grow into a habit and the consequences may be very deleterious to the mental functions. . . . It is possible something similar may occur in the case of the analgesics. But there is another possibility which I wish to indicate in addition to this, namely, that just as the brain may become deteriorated by the use of chloral or morphine, so the cord may possibly be injured by the use of analgesics."

As an antithermic and analgesic of the aromatic or coal-tar series, I prefer acetanilide or antifebrin for the several reasons:

1st. As acetanilide has no trade-mark and is not patented.

2nd. Its first effect is to quickly lower the temperature, the

amount of decrease depending much upon the abnormal elevation, reduces the pulse rate and increases the action of the kidneys.

3rd. It is easily taken as a powder, and is well borne by the stomach.

4th. Cyanosis is not so frequently observed, and the tendency to produce collapse not so much as with some others of the group.

5th. It is not expensive. It, as do all the similar remedies, seriously retard digestion. All of them have been lauded as being superior to chloroform in relieving the pains of parturition. I have tested the truth (?) of this assertion, and found in two cases where pain was arrested, uterine contraction was also arrested. Caution is more required in the administration of these remedies to children than when given to adults, since the effects are not so apparent at first; for if we watch for free perspiration, or a pulse much decreased in frequency, we are apt to exceed a safe limit. In the fevers of children who have an unstable nervous organization, who at the outset are apt to have severe convulsions, often with threatened cerebral congestion, a dose or two of antipyrine given in an enema is an efficient adjunct to other treatment.

Stropanthus, while not entirely new, as a remedy, has been but little used until the past few years. Its therapeutical value has not been fully determined. Although Frazer, Corville and Brunton have carefully studied its physiological action, there are not enough clinical facts reported, to justify us in using so powerful a remedy without a watchful supervision of our patient. Since it takes its place in our materia-medica as a heart tonic, systematic writers are apt to contrast it with digitals. Studied thus, it may be said that a cumulative effect has not been observed, it rarely causes vomiting, and is a little more active as a diuretic than digitalis.

"It quiets the heart-muscle, and its apparent tonic effect is due to relaxation of arterial walls, thus lessening obstruction to the flow of blood."—Haas.

Pins finds it "superior to digitalis as a heart tonic; is a reliable diuretic, and acts promptly in dyspnœa."

Fraënkel found it "efficient in disturbances of the heart from excessive use of alcohol and tobacco."

"Its action on the heart is much more powerful than digitalis, it causes a rise in the blood-pressure, due chiefly to the heart, since it does not produce so marked a contraction of the arterioles as digitalis."—Brunton.

"It is a muscle-poison, increasing the contractile-power of all striated muscles, . . . but the heart is easier influenced by it than are other muscles, and the dose may be so regulated that the cardiac effects may alone be produced. It also contracts the arteriole somewhat, but not to the extent as does digitalis."—Biddle.

Nitro-glycerine, which has its greatest reputation in relieving the tension of the blood-vessels in angina-pectoris, has of late had its range of usefulness extended, and is found palliative or curative in puerperal eclampsia, asthma, and some of the neuralgæ. Its action is so prompt and decided as to alarm the timid practitioner if not forewarned, when he sees the deeply flushed face, brilliant eyes, profuse perspiration, and often hears complaints of severe headache. In pernicious malarial fever, when speedy dissolution has been threatened, I have had good results from the hypodermic injection of nitro-glycerine.

The following estimate of these three heart tonics given by Prof. Thompson, I think, is correct: "Digitalis, stropanthus and nitro-glycerine, administered jointly, in labored action of the heart when caused by arterial contraction, will be found to be a happy combination. Stropanthus acts so as to render the heart's action regular and rythmical—rendered arythmical by the more powerful digitalis—and nitro-glycerine by arterial relaxation."

The new hypnotics claiming our attention as therapeutists are numerous, and as usual with new remedies, all have strong endorsements from both France and Germany; it seeming to make no difference whether the articles bear stamps of trade mark, are patented, or show other slightly suspicious ear-marks. Of all that I have tried, I can report favorably of paralde-

hyde and urethan. Paraldehyde produces quiet sleep of brief duration—two to four hours—with a period of mild preliminary excitement, after giving two to four doses of thirty five to fifty minims every half an hour. In the insomnia produced by overwork, anxiety and other conditions where pain is not a prominent symptom, it is one of our best remedies. Unless there is present considerable gastric derangement (as seen in malarial and uterine affections) it will be well borne by the stomach, and the bowels will not become constipated. Its harsh taste and strong odor are serious objections to it. Biddle says, "its toxic effect is from paralysis of the respiratory centre of the medulla, the heart remaining unaffected."

Of the therapeutical uses of urethan, about the same can be said as of paraldehyde, but the taste is not disagreeable, it is odorless and seldom disagrees with a delicate stomach. It is credited by some writers with antithermic properties, but in my use of it, I have never been able to discover any such effect. Neither can be used hypodermically.

Saccharin's place in medicine until recently, has been only to disguise the taste of nauseous drugs. For this purpose it is a decided addition to "elegant pharmacy," and as its bulk is inconsiderable, it forms a useful excipient in the preparation of medicines at the bed-side. Quite lately, reports of its good effects are given, in ammoniacal urine. But as it is a non-digestible substance, and can not replace cane sugar, its range is probably limited.

Guaiacol in tuberculosis, is reported by several observers to reduce temperature, lessen the irritable cough so as to favor sleep, and increase the appetite. I have found it most serviceable in cough attending the catarrhal-fever lately prevailing, and in the chronic bronchitis of aged people. It is comparatively easy to take, as the taste and odor are not disagreeable, somewhat similar to oil of wintergreen (gaultheria), and is well borne. No bad effects thus far have been reported from its use, but the question will intrude itself: is it much if any superior to creosote, of which it constitutes sixty per cent.? Its cost is some drawback to its free use.

In these times of therapeutic and chemical activity, when so many new remedies are annually offered to the profession, every one of which has so many commendatory articles written about it by enthusiastic gentlemen who have seldom given exhaustive study of the physiological effects of the drug, or made sufficient clinical study, the hard worked practitioner becomes confused in the attempt to keep pace with medicinal progress. We can all agree that the free use of medicinal agents before their remedial properities are placed on a firm basis, will redound neither to the credit of physicians, nor serve the best interests of patients. Therefore, would it not be well for the physicians of the United States to refer all new therapeutic agents to some central committee or organized body, to systematically study their effects upon the human economy, before free use of them shall be made in general practice. Such a body of investigators might be found in the faculty of the John Hopkins University, or the New York Academy of Medicine; or, one might be especially organized for the work through the American Medical Association. An obvious objection to such a plan, is the expense, and the difficulty of collecting funds to employ the requisite talent and to meet other expenses. Yet, if an effort were made, I think voluntary contributions would be given sufficient to institute such work.

The Hyderabad Chloroform Commission, through its president, has twice reported the results of its investigations, made as to the action of chloroform on the heart and respiration. According to the Medical Record, ". . the results appear to contradict, totally, previous views held as to the action of chloroform upon the heart and respiration. They began in October last, and the final report just published in the Lancet, shows that respiration is always stopped before the heart."

The extract from the editorial here quoted, conveys the impression that the profession in both Europe and America, accept the proposition that death from chloroform is caused by arrest of the heart's action. Such belief may be firmly held in the northeastern part of the United States, but it is not

the one entertained by all of the medical teachers and practitioners of this country.

Ashurst says: "Death from the administration of an anæsthetic may come from a failure of either foot of the vital tripod, the head, the lungs, or the heart; in other words, it may be due to coma, to apnoea or to syncope."

The late Prof. Cabell of the University of Virginia, taught thus:

Effects desired in surgical anæsthesia, are:

1st. Suspension of volitional movements.

2nd. Abolition of sensation.

3rd. Arrest of reflex function of the spinal cord.

Toxic effects:

4th. Arrest of respiration.

5th. Arrest of heart's action.

THERAPEUTIC VALUE OF PHENACETINE.

BY THOMAS W. AYERS, M. D., OF JACKSONVILLE,

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During the past few years the claims of a number of new antipyretics have been presented to the profession. During this period, they have formed the basis of interesting theses from the most renowned clinicians known to fame. From the manner in which several of these new agents have been recommended by a number of the greater lights of the profession has been calculated to lead the average practitioner to regard them as regular panaceas, but for the fact that there have been other gentlemen of equal prominence in the profession who have thrown on the brakes by pointing out the danger and untoward results following their use. From the information which has been furnished through the medical journals, it has been difficult for the general practitioner to determine which of the new antipyretics is the safest and most efficient for him to use in his practice. Which shall I prescribe? has been an important question for many practical and thoughtful men to determine. Important from the fact that we so frequently need to prescribe an antipyretic, and that frequently so much depends upon the action of the remedy to be used. Probably so much importance is not attached to any other class of remedies which we use as attaches itself to a proper selection of our antipyretics. In making a selection of an antipyretic, it is our purpose to select one which is reliable, prompt and safe. In the effort to secure such a remedy, many persons, like the writer, have given nearly all the new antipyretics a fair and impartial trial. My observations from such a trial of the new antipyretics has led me to regard phenacetine as the antipy-

retic par excellence, and is deservedly, rapidly taking its place at the head of this class of remedies.

It is the purpose of this paper not only to consider the value of phenacetine as an antipyretic, but as an analgesic. I began to prescribe phenacetine directly after its introduction in America, and, in May, 1889, in discussing its therapeutic value in the New York Medical Record, I had this to say of it as an antipyretic:

"As an antipyretic I have had nothing but the very best results from its use. The time at which the temperature commences to fall when phenacetine has been given in pyrexia, is usually not more than thirty minutes, and the maximum lowering occurs in about three hours. The duration of the reduction is usually from four to six hours. Ten grains will be found to be usually sufficient to lower the high temperature by three degrees, after the lapse of from two to four hours. The transition of the high temperature to the lower, and *vice versa*, is a gradual one. After large doses, say fifteen to twenty grains, have been administered, profuse perspiration occurs, but no bad consequences supervene. Have not had it produce a cutaneous rash like that produced by antipyrin and other antipyretics."

Since the above observations were made, twelve months ago, I have used phenacetine almost daily, and the much more extensive use of it has not caused me to change the above conclusions of its therapeutic value as an antipyretic. I have learned, however, that seven and a half instead of ten grains is usually sufficient to lower the high temperature by three degrees, and in continued fevers I usually give it in seven and a half grain doses, repeated every four to six hours.

During the past twelve months I have prescribed phenacetine in a large number of cases affected with maladies in which there was pyrexia. Among these were several cases each of typhoid fever and pneumonia. Without entering into a detailed clinical report, I will state that in all these cases I have used phenacetine extensively and with entire satisfaction. My experience has been that it has greater and more prolonged

effect than antipyrin or antifebrin, and in no instance have I had from its use such untoward results as I have had from the use of the two other remedies mentioned. In no instance has it produced rigors, nausea, vomiting, cyanosis, or eruption of the skin; only profuse perspiration was observed in some cases. My observations have led me to the definite conclusion that phenacetine in fevers shows itself superior to antipyrin, and acetanilide in producing marked anti-thermic effects, and this without the danger of toxic phenomena. This conclusion leads me to insist that as it is superior and much safer, that it should be substituted for antipyrin and antifebrin as an antipyretic. While we as yet have practically nothing in our leading works on materia medica and therapeutics as to the value of this new remedy, many distinguished gentlemen have recently given their observations through the medical press.

A. Huber has used it as an antipyretic, giving it usually in fifteen grain doses once a day. In several cases he found it effective after antipyrin had failed to reduce the fever, and he considers it superior to this drug in lowering temperature. He says there were no disagreeable sensations produced, and collapse and vomiting did not occur.

Misrachi and Rifat point out the fact that the drug is soluble in a warm solution of lactic acid, and hence the gastric secretions can dissolve it. They say it is less toxic than antipyrin, and much less so than antifebrin. That in intermittent fever less perspiration follows it than the other antipyretics. It may be administered for months without any unpleasant symptoms.

B. Rohden says that the unpleasant effects witnessed after the use of other antipyretics are entirely absent after the indigestion of phenacetine. He has used it extensively and with entire satisfaction in an epidemic of scarlatina and measles.

L. Roe says phenacetine acts admirably in six to eight grain doses, has greater and more prolonged effect than antipyrin, and produces no rigors, nausea, or vomiting.

Dujarden-Beaumetz says phenacetine, in febrile conditions,

shows itself superior to antipyrin and acetanilide in producing marked anti-thermic effects without toxic phenomena.

Should I give even a synopsis of similar expressions from all the distinguished men who have been delighted with the use of phenacetine, it would require a paper of much greater length than I would presume to read upon this occasion. From the conclusions which have been reached by the large number of able and careful observers, we must confess that phenacetine as an antipyretic is the equal of antipyrin or antifebrin, and as it is so much safer, I see no reason why it should not take its place at the head of the list of antipyretics.

But, as Dr. Dujarden-Beaumetz says, it is above all as an analgesic that phenacetine outrivals its predecessors. In the article in the New York Medical Record previously referred to, I said: As an anti-neuralgic, there is no question but it is superior to antipyrin. The effect of the drug is manifest, as a rule, in thirty minutes after the administration of the first dose. If relief is not obtained in from thirty to sixty minutes, a second dose is given; but I have rarely had to give the second dose to relieve any painful affection. The results obtained in the treatment of neuralgias and migraine indicate that all paroxysmal pain is especially susceptible to treatment by this remedy. I have prescribed it among other affections for occipital neuralgia, hemicrania, facial neuralgia and dorso-intercostal neuralgia, and in no case has it failed to give marked relief, and the pain usually disappears in thirty to sixty minutes. I have noticed in several instances that its sedative action is accompanied by a decided hypnotic effect. I had a patient this week who suffered intense pain from dental neuralgia. I prescribed for her twenty grains of phenacetine. In forty minutes she was entirely relieved of pain and slept soundly. The pain returned with great intensity in eight hours. Again I gave twenty grains of phenacetine. In thirty minutes she was perfectly easy, and soon slept soundly. In six or eight hours she had a return of the pain, which yielded as before to the effects of phenacetine, and did not again return. I also had a patient this week who suffered from excru-

ciating, darting, lancinating pains along the distribution of the ophthalmic division of the trigeminus. He had taken antipyrin and morphine, with negative results. I prescribed for him twenty grains of phenacetine. In thirty minutes the effect of the drug was manifest. In one hour he was entirely easy, and the pain did not again return.

Since the above was written, I have used phenacetine for the relief of nearly every form of pain, and have had nothing but the very best results from its use. Have been especially pleased with it in the treatment of migraine sick-headache. Have used it with one patient almost monthly for more than twelve months. Before commencing the use of phenacetine her headache was usually prolonged for more than twelve hours, and nausea and vomiting would frequently supervene without, however, mitigating the pain. Have given her phenacetine in fifteen grain doses, and with one exception it has never failed to relieve her inside of an hour, and nausea and vomiting have never supervened.

Have used it in several other cases of migraine with similar results, but in no other case have I had an opportunity of noticing its effects so often and for such a length of time; but have not prescribed it in any case where it failed to give relief.

In nervous headache, where patients complain of distressing sensation as if the head were compressed by a vice, and which is accompanied by insomnia, I have had phenacine to act like a charm. One dose of fifteen grains is usually sufficient to relieve pain in head and have patient enjoy a sound and refreshing sleep.

This drug is also said to be a powerful anti-rheumatic. It appears to have a specific action on rheumatism, and one distinguished writer says that in thirteen out of twenty-three cases it produced an immediate cessation of the fever, and within a few days the articular pain and swelling. B. Rhoden says that in rheumatic arthritis he has had better results from doses of forty-six grains daily than with salicylic acid. I have prescribed it in several cases of rheumatism with varying results. While my experience has been very limited in the

treatment of this disease with this remedy, yet I am not inclined to believe it the equal of salicylate soda in the treatment of rheumatism.

I have found phenacetine very valuable in its sedative action on the nervous system. No remedy that I have yet used is more suitable for nervous excitement and allied conditions.

The insolubility of phenacetine has been frequently urged against it as being for this reason unpleasant for the patient to take. I have not found this objectionable. On the other hand, as it is absolutely tasteless, I find that persons prefer to take it to almost any other remedy. In giving it to children I order it mixed with an equal quantity of granulated sugar, and the little ones willingly eat it without knowing that they have taken any medicine.

To sum what I have said of phenacetine, I draw the following conclusions:

1. It is an excellent antipyretic.

2. As an antipyretic it is best given in doses from seven to ten grains.

3. It is an efficacious analgesic.

4. As an analgesic it is best administered in single doses of fifteen to twenty grains, instead of smaller doses given every few hours.

5. It is valuable for its sedative action upon the nervous system.

6. It is absolutely tasteless and more pleasant to take than any other antipyretic.

7. The great advantage which it has over antipyrin and antifebrin is that it is non-toxic.

OVARIOTOMY BY McDOWELL'S INCISION IN ALABAMA.

BY NATHAN BOZEMAN, M. D., OF NEW YORK,

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It has occurred to me that a few notes on the subject of ovariotomy by McDowell's incision might prove of interest, for the reason that it is only within a few years, so to speak, since the first successful operation of the kind in the state was recorded, and the report, although published by me in a New York Medical Journal, has never to my knowledge been noticed in the transactions of the Medical Association of the State of Alabama.

Notwithstanding the facts that as far back as 1848, when I witnessed a successful operation performed by the late Prof. Henry Miller, of Louisville, Ky., (Western Jour. of Med. and Surg., July, 1848,) and that in my practice in Montgomery and New Orleans, commencing in 1849 (during which time only three or four cases of supposed ovarian dropsy came under my observation), yet never was the necessity forced upon me to perform the operation of ovariotomy prior to the date of this case in January, 1865.

In the publication referred to entitled: Remarks on the history of ovariotomy, and the report of a case in which the intra-peritoneal treatment of the pedicle with a silver ligature was adopted with success (the Medical Record, September 1, 1866), I made some pointed reference to the history of the operation as given to the world by Ephraim McDowell in 1809, and the great injustice that had been done this justly renowned surgeon in the early days of his experience, men-

tioning especially the conduct towards him of Mr. John Lizars, of Edinburgh, and the unwarranted criticisms of Dr. James Johnson, the learned editor of the London Medico-Chirurgical Review.

I believe my operation was the first ever performed in the state, at all events, I have never seen the report of a similar one prior to the date of it, and I think the history of the case and the circumstances attending the operation are of such a character as to require here no lengthy apology for their presentation.

The case occurred in the practice of the late Dr. James A. Kelley, residing near Bradford, Coosa county, who enjoyed at the time a wide reputation in that and the adjacent counties of Talladega and Tallapoosa; and a better informed and more skillful country practitioner I never knew.

Summoned, as I was, at a moment's notice to go fifty miles over a rough country to perform an operation of this character, was no ordinary event in the life of even a general surgeon at that stage of the history of the operation—certainly as contrasted with the facilities of travel, and the improvements in the operation, enjoyed by ovariotomists at the present time.

The distinctive features of the operation I performed were first, the long McDowell incision; second, the extensive dissections required to overcome the existing parietal and visceral adhesions; third, the large size, and more or less solid character of the tumor, and fourth, the employment of the intraperitoneal treatment of the pedicle, silver wire ligatures being used and cut off close to the knots. The question of the short, medium and long incisions at this juncture of the history of ovariotomy, would seem to call for but little discussion, since the ranges of usefulness of each and all of these preliminary steps of the operation are generally well understood by operators.

By a short incision, I mean an opening large enough to admit one or two fingers, whether as an extension of a simple puncture with the trocar, or a plain incision with the knife, either in the linea alba, or through the parieties of the abdo-

men of a corresponding length; by a medium incision, I mean the extension of the short in the linea alba, or an incision made out and out, occupying all the space between the umbilicus and the pubes; or, one of a corresponding length anywhere in the muscular wall of the abdomen; and by a long incision an extension of the medium incision in the linea alba to any point between the umbilicus and the ensiform cartilage, or one through the parieties of the abdomen outside of and parallel with the fibers of the recti muscles of a corresponding length.

McDowell, in his first case (that of Mrs. Crawford 1809) made the incision in the left side, through the parieties of the abdomen, nine inches in length, and in his second case (1813) a similar incision; but in his third case (1816) he says: "I began the incision . . . an inch below the umbilicus and extended it to within an inch of the os pubis." Finding he could not turn the tumor out through the opening made, he further says: "I then cut to the right of the umbilicus and above it two inches, turned out the tumor." Thus did McDowell, by his third operation, give to the world a completed procedure, which is the operation of our own day, and which every conscientious surgeon must continue to admit and acknowledge through generations to come.

From my point of view, I regard the intrinsic value of the long incision in the linea alba, in the operation of ovariotomy, properly so-called, as far exceeding the other two, for the reasons that the short is susceptible of being converted into the medium with very little if any additional risk to the life of the individual, according to statistics, and also the medium into the long, with like impunity. These are necessities that have always attended the operation arising from the diversities in form and consistence of tumors, and from the difficulties in diagnosis of these peculiarities, together with co-existing complications. And such emergencies and impediments will continue to arise in the operation to the end of time—a statement fully justified by our knowledge of the pathology of ovarian diseases. The superior advantages of the long incision, therefore, are indisputable, and are just as great and important to-

day as when McDowell gave the procedure to the world eighty years ago, and placed it upon the broad basis of recognition.

I do not wish to be understood as condemning the short and medium incisions, for the reason that each has its advantages under certain circumstances. As exploratory or initiatory, they are of practical value and are susceptible, as before stated, of extension into the long incision, as was done by McDowell himself in his third case. But in this connection, what I wish is to protest against the injustice often done the memory of McDowell by the ever-recurring and inadvertent efforts of writers to ignore the real claims of McDowell, and to extol the labors of those who have employed the short and medium incisions alone, as a procedure original and different from that of McDowell, commencing with Dr. Nathan Smith in 1821, then Messrs. Jefferson, King, West, Hargraves, Morgan, Dolhoff, and ending with Mr. Benj. Phillips, of London, in 1840, all of whom, more or less, came to grief because of their prejudice to the long incision, and their failure to appreciate the advantages of it. Only in a recent number of the Philadelphia Medical News, appeared an article upon the history of ovariotomy, in which the operation of Dr. Nathan Smith is set forth as an entirely original procedure, with the distinctive feature of a medium incision, three inches in length, in the linea alba below the umbilicus, as if this were any more of an ovariotomy, or any less a McDowell procedure because the cyst found was single, could be punctured, and was drawn through such an opening, than the original operation performed by McDowell when he made the long incision (nine inches) and removed a tumor weighing 22 1-2 pounds. What facility would be afforded by such an incision as Dr. Smith's of enabling the surgeon to remove a solid tumor, or a solid and fluid tumor from the abdomen, complicated with visceral and perietal adhesions; such a case, for example, as was encountered by Delaporte more than half a century previous to the great advance made by McDowell by his long incision? Here Delaporte, with an incision five fingers breadth in length, made through the muscular wall of the abdomen, attempted to empty a drop-

sical ovary (by drainage simply) of its contents, and found himself utterly powerless to accomplish his purpose. He noted each day the discharge of the fluid, amounting in all to sixty-seven pounds, and witnessed the termination, by the death of his patient on the thirteenth day. Hence his conclusion after the autopsy, that it might have been better to extirpate the "diseased ovarium," the focus of the disease; but neither Delaporte nor any one of his followers ever performed this operation before McDowell did it. L'Aumonier, it is true, thought he extirpated a diseased ovary in 1782, but the facts are conclusive that he only made an incision four inches long and emptied a pelvic abscess, resulting from puerperal peritonitis in a young woman five weeks after confinement.

When a surgeon talks to us about the short or even the medium incision in ovariotomy as being all important, and an operation independent of McDowell's procedure, it is only necessary to ask him what kind of an incision he would employ for the removal of a tumor of the character mentioned, and to what kind of incision does he ascribe the brilliant results that have been achieved of late years in the operation of abdominal section for the removal of fibrous growths of the uterus, or for the so-called Poro-procedure.

When it is remembered, therefore, that it was by McDowell's employment of this long incision that he was enabled to accomplish the hitherto unknown feat of extirpating a dropsical ovarium, the possibility of which having only been suggested previously by Delaporte and Morand, and that by so doing he at once put his procedure in the strongest possible contrast with that of simple incision by Houston and LeDran, which had then been in vogue in England and France for over a century, thus immortalizing himself and conferring upon mankind an inestimable boon, the least this and all future generations can do is to honor his name by maintaining it inviolable against any and all followers, claiming any credit whatsoever in the perfection of ovariotomy by merely shortening his incision.

The great interest in the case that I now propose to append,

illustrates in the highest degree the superior advantages of extending the medium into the long incision at the beginning of the operation, and proves beyond all question that had I advocated the short or medium incision alone, I would have utterly failed in my efforts, as the tumor was largely solid, occupied both the abdominal and pelvic cavities, and was adherent to the parieties of the abdomen throughout its entire extent, even to the intestines.

Mrs. G., of Sockopatoy, aged 25, married at 19, and had two children, the last born May, 1861. Dr. Kelly stated that the patient had an attack of uterine hemorrhage in May, 1863, and soon after this began to notice an enlargement of the abdomen. At the end of the seventh month the enlargement had greatly increased, and Dr. K. was again called to see the case, when he detected a rounded tumor in the left side. Menstruation continued to occur regularly up to May, 1864, when it ceased entirely, having lasted one year from the time the tumor was first noticed. Soon after this the tumor attained such a size as seemingly to occupy the whole abdomen, and following this, in the order of sequences, there was severe pain over the entire abdomen, attended with frequent violent attacks of nausea and vomiting. The tumor now becoming immovable, with increased distension of the abdomen, emaciation, dyspnœa and œdema of the lower extremities became prominent features, which urgently called for relief by tapping. This operation was performed the first time July, 1864, and three gallons of greenish fluid was drawn off, the consistency of thin molasses. The tumor by this operation was only slightly reduced in size, indicating that only one cyst was emptied, and from this time on the patient was tapped about once a month. In the subsequent operations, from five to six gallons of a mucilaginous fluid was drawn off. The seventh and last operation was performed January 7, 1865, the whole quantity of fluid up to this date having reached thirty-five gallons. The urgency of the case at this stage became very great, and the patient now having the dangers of the operation for removal of the tumor clearly set before her, decided to

have it performed. Whereupon Dr. Kelly sent me a message to Montgomery (where, during the war, I was temporarily residing,) to come at once to see this case in consultation, and if deemed proper, to perform the operation. I saw the case with Dr. Kelly for the first time January 13th, and here follows my original report:

"For the examination she was placed upon a table in a half-recumbent posture, and the body partially exposed. Inspection of the abdomen, enormously distended, revealed an enlarged condition of the subcutaneous veins, and a very considerable protuberance just below and to the left of the umbilicus. Over this region fluctuation was quite perceptible, but nowhere else, at once distinguishing in a marked degree, the enlargement from that of ascites. A point just below the umbilicus in the linea alba had always been selected for the operations of tapping. By the hand now pressed deeply into the abdomen, hard and soft portions of the immense morbid growth could be easily distinguished, but no movement of it whatever could be made perceptible. On introducing the finger into the vagina it came directly in contact with the cervix uteri, which was found to be normal in size and situation. I was indeed surprised at being able to reach the organ so readily. I next passed the sound into the cavity of the uterus, and with this I was able to bring the fundus of the organ, without difficulty, against the fingers of my left hand, pressed down deeply in the pelvis, thus assuring myself that this organ was in no way involved in the morbid growth. Upon withdrawing the sound, now, and passing the finger into the utero-rectal pouch, it encountered a somewhat hard and nodulated body pressing down upon this portion of the vagina, and which could not be moved or displaced in any direction. This I could not regard as anything else than a part of the tumor in the abdomen, which was probably adherent to one or more of the pelvic viscera. With this view, therefore, of the desperate nature of the case, and having the full consent of the patient, I deemed it advisable at all events to open the abdomen by the small incision (medium) and then be governed by such developments

as would necessarily present themselves by this step of the operation. Accordingly a mild cathartic was ordered at bed time, and instructions given for the operation the next day.

"*Operation.*—The lower bowel having been washed out by a large enema of warm water, and the bladder emptied by the use of a catheter, the patient was placed upon the table in a half-recumbent posture, with her feet resting on a chair. The chloroform was now administered by Dr. Baker, my other and only assistant in the various steps of the operation, being Dr. Kelly. The first incision was made, extending from the umbilicus along the linea alba to the symphysis pubis. The peritoneum, on being exposed, was carefully opened on a grooved director, which brought into view the tumor, found adherent to the parieties of the abdomen, on each side of the incision, as far as could be seen or felt. These adhesions, however, I soon discovered could be easily overcome with the handle of the scalpel; and to facilitate this step I at once extended my first incision to the ensiform cartilage, making it about fourteen inches in length, constituting the large incision, to which Dr. Clay very properly attaches much importance. [Denoting the era (1842) of the revival by him of the procedure in England.]

"The work of breaking up adhesions was now fairly commenced, and having extended my dissections as far as I could on either side, the tumor still remained immovably fixed. I could not proceed further, therefore, without contracting its size, so I punctured the most prominent part of it, and let out about three gallons and a half of fluid of a mucilaginous character. The partial collapse of the tumor by this expedient enabled me to extend my explorations and dissections, which soon brought into view extensive adhesions of the small intestines to the back side of the morbid growth. At the several points of attachment I took hold of the bowel lightly, and dissected it off, still using the handle of the scalpel, which was attended by little or no hemorrhage. I now turned my attention again to the lateral adhesions, which were still found to be extensive and more resisting. It required nearly my full

strength to sever them at some points; but encouraged by the progress made, and the almost total absence of hemorrhage, I abstained from turning the edge of the knife against them, and to this circumstance I am satisfied, much of the final success of the operation is to be ascribed.

"Having completed my dissections latterally, and finding the tumor to be all free, excepting the pedicle, which proved to be from the left side of the uterus, I next passed my hand into the pelvis, and discovered the latter organ to be in its normal position, as I had been led to expect from my first vaginal examination. Between the uterus and rectum, however, and for some distance around the pelvis, there was found to exist an uneven and slightly yielding mass, connected with the abdominal portion of the tumor by an isthmus. So firmly was it packed in its position that I had considerable difficulty in dislodging it. Fortunately, however, there were no adhesions of this pelvic portion of the tumor, and when it was extricated the whole mass, now free, was turned to the right side of the patient, and there supported until the pedicle could be secured. This was found to be about three fingers in breadth, and six or eight inches in length, the latter feature affording the explanation of the little influence exerted over the uterus in the ascent of the ovary to the abdomen, and its growth there.

"The pedicle was transfixed near the uterus by a needle armed with a double silver ligature, and each half of it constricted separately by tying the two ligatures on the opposite sides. This being done, and the ends of each of the wires cut off close to the knots, the pedicle was next severed and the uterus allowed to drop into the pelvis. The right ovary was found to be normal.

"The fluid that had escaped into the abdomen and pelvis was now lightly sponged out, and upon careful examination not the slightest oozing of blood could be seen from any point.

"After waiting a few minutes, I proceeded to the closure of the wound, which I did with silver wire, secured on the principle of my button suture. The sutures were introduced at intervals of three-quarters of an inch, and each one had its

respective button, two inches in length, half an inch in breadth, and saddle-shaped, standing directly across the approximated edges of the wound. Over the whole was placed a thick compress, and a wide roller then applied so as to give support to the entire abdomen.

"The patient was now lifted into bed, and one grain of morphine given. She remarked that she had not felt one particle of pain during the entire operation. The system sustained no shock, as indicated by the pulse, which was found to be less frequent, and with more volume than just before the operation was commenced. Perfect quietude was enjoined, and the temperature of the room to be kept day and night at a comfortable standard.

"*Tumor.*—An examination of the growth showed it to be of a multilocular form. The large cyst that I punctured during the operation, on being laid open was found to occupy rather a central position in the tumor, and had very thick and vascular walls. Projecting into this sac were to be seen numerous other cysts with flattened walls. These, on being likewise laid open, revealed other smaller cysts of the same character, all filled with fluids seeming to have undergone different transformations. They were generally of a mucilaginous, saponaceous, and gelatinous character. One cyst of considerable size was filled with a firm, whitish substance, resembling curd very much, and which on being broken or torn in pieces presented a somewhat laminated appearance.

"The tumor, after all the cysts of any size had been emptied, weighed fifteen pounds and a quarter, and if all the fluid could have been preserved that it contained, the whole mass would not have weighed less than forty-five pounds.

"*The result.*—Dr. Kelly wrote to me several weeks after the operation to the effect that the patient went on improving as rapidly as could have been expected, until the end of the fourth week, at which time she was seized with dysentery, which proved very obstinate and came near resulting fatally. From this, however, he stated she slowly recovered, and no further danger was apprehended. When I heard from the

patient last, which was something over a year after the operation, she was said to be in a state of perfect health."

In continuation of my notes on ovariotomy by McDowell's incision in Alabama, I may be permitted to state here that the foregoing case forms the commencement of a series of fifty odd other ovariotomies, performed by me for the most part in the Woman's Hospital in the state of New York, during the eleven years I was connected with that institution, and in hospitals in Jersey City, New Jersey. The first eight of these cases, operated upon in the Woman's Hospital, from May, 1878, to June, 1879, I published in the Medical Record, for July and August of the latter year, in an article, entitled : "Remarks on Ovariotomy with Relation of Cases, and Peculiarities in Treatment." Only in one of the cases did I find it necessary to employ the long incision of McDowell, the medium incision being found sufficient for all the others. In my report of these seven cases, I erroneously described the incision small, as including all lengths of incision in the linea alba below the umbilicus, in contradistinction to the long incision of McDowell. I take occasion here to correct this error, believing the distinctions between the short, the medium, and the long incisions previously pointed out, to be not only proper but highly necessary in order to facilitate description. If the designations of the kinds of incisions I have insisted upon are not in strict harmony with the recorded experiences of the older writers upon the subject, they certainly deserve recognition now, and I believe will be found of real value, as indicated, and to accord with the wide range that abdominal sections for all purposes have assumed within the last few years.

All of these eight cases, I should say, were treated antiseptically, and by a supporting after treatment, including rectal alimentation, conjoined with quinine, opium, and according to circumstances, digitalis with applications of iced water over the abdomen for controlling temperature. It is proper to mention here, incidentally, that this supporting after treatment in ovariotomy, is generally supposed to have been introduced into practice within the last few years, and I my-

self even supposed this to be so when I began to employ it in 1878. Recent investigation of the subject, however, has shown conclusively to my mind that the credit of it is entirely due to Mr. R. C. King (1836) of Saxmundham, Suffolk, England. This addition to the McDowell operation, I regard as the most important, by far, that was made to it previous to the revival of the operation by Dr. Chas. Clay, and Mr. Walne, of England, in 1842, and in the United States by Dr. John L. Atlee of Lancaster, Penn., in 1843.

Of these eight cases referred to, the last one (a carcinomatous growth,) terminated fatally, thus giving me, with the case here recorded, eight consecutive successes. In my comments upon these cases, published in the article just referred to in the Medical Record, I said:

"Of the eight results recorded, seven were complete cures, giving a mortality of 12 1-2 per cent. 7 1-2 per cent. less than the average mortality attributed in the outset of these remarks to the practice of all operators. Again, counting the number of diseased ovaries removed, eleven, with only one failure by death, which is a legitimate mode of presenting the subject, and the comparison is placed in a still better light. The failures would then stand at 9 per cent.

"These eight cases, with one (successful) previously reported in this journal, (Sept. 1, 1866), comprise my entire experience in the operation of ovariotomy, and altogether show a death rate of 11.11 per cent. Prof. Nussbaum has said that if a surgeon could commence his career as an ovariotomist with the experience of twenty operations, he might expect in the course of time to record a respectable average of success. If the results here recorded teach anything, it is that a mere tyro may do this as well as the self-constituted ovariotomist with his twenty embodied experiences, if he will take the trouble to make himself familiar with the principles of the operation, and is patient and painstaking in all its requirements and details."

Of the great variety of cases that afterwards presented in the series named, I will refer to two only, as illustrating the

great value of McDowell's long incision, without a knowledge of which I would have been utterly helpless to accomplish the purposes of the operations undertaken.

The first case was the wife of an eminent physician, now of Fort Worth, Texas, who was referred to me by the distinguished Professor of Surgery of the University of Louisiana, Dr. T. G. Richardson, in 1881. The case was thought by him to be one of ovarian dropsy, which diagnosis, after a careful examination in New York, I corroborated, as did also my colleagues, Drs. Thomas and Emmet, who saw the case in consultation with me. In the operation (Dec. 2, 1881) I commenced with the medium incision, and upon the introduction of my hand into the abdomen, I discovered at once that both ovaries were free of disease, and that the tumor supposed to be ovarian had its attachment high up in the abdominal cavity; whereupon, after tapping the cyst, and drawing off upwards of three gallons of fluid, I extended my medium incision into the long, reaching up to the ensiform cartilage. With this exposure of the peritoneal cavity, I found the stomach crammed up against the diaphragm, and the transverse meso-colon, omentum, and bowels crowded down into the lower regions of the abdomen, thus presenting a bed or cavity between these structures large enough to snugly store away a filled bushel sack. With free control, now, of the collapsed cyst, only a few minutes were required to complete the extensive dissections of it from the omentum and meso-colon. This disclosed, at the bottom of the large cavity, the attachment of the cyst to the pancreas, with the splenic extremity of the same turned up and applied closely to the pedicle. I will state, as an interesting fact, that this point of attachment was just opposite the lodgment of the ball, found in the autopsy of the late President Garfield, only the thickness of the pancreas intervening between the two localities. Suffice it to say, the pedicle, three-fourths of an inch in thickness, and about an inch in length, was transfixed and constructed with double ligatures, and the cyst removed in the usual way, thus leaving the field occupied by the spleen, pan-

creas, stomach, duodenum, and liver, free, with full exposure of the pulsations, beneath, of the aorta. The closure of the wound was effected in the usual way, and the after treatment conducted on the supporting principle heretofore described. The patient made a satisfactory recovery, and remains well at the present time.

The question may be asked here: What could have been accomplished with the small incision, or even the medium incision?

From the character of the tumor found to exist, there is no doubt that it could have been punctured and drawn through a medium incision, admitting the hand, or even through a short or small incision, such as described; and that the collapsed cyst could have been traced with the hand to the point of adhesion to the meso-colon, or even to its seat of attachment to the pancreas. But with this small incision, or, if you please, extended to the medium, the whole length of the linea alba below the umbilicus, is there a surgeon who will say with the anatomical and pathological difficulties presented, that he could have made through such an opening the required dissections, exposed, ligated, and divided the pedicle, as described? I think not. I did then what I believed to be the only way out of the difficulty, which was to convert the medium into the McDowell incision, reaching up to the ensiform cartilage, thus exposing to view the whole field of the abdomen, which gave me light, space, and free access for the purposes indicated.

Situated as I was, with the alternatives of a short or medium incision, I could have made moderate traction upon the collapsed cyst wall; yea, I could have made forcible traction upon the organs involved, to the extent, even, of damaging these organs; but such a thing as drawing the pancreas to the light of day, as I would have been compelled to do to reach the seat of attachment, would not only have been unwarranted, but criminal, as death from direct laceration and injury, would inevitably have followed.

Again, I could have drawn the cyst out as far as would

have been warranted, cut it off, attached it to the edges of the wound, put in a drainage tube, and closed up the wound, with a prospect no better for the patient's recovery than after extirpation; and should she have fortunately recovered from such an expedient, a fistulous outlet would have probably been the result, continuing to discharge to the end of life, whether short or long.

The scientific interest in this case, is that it was the first successful case of its kind on record. Prof. Rokitansky of Vienna, undertook a somewhat similar operation a few weeks previously, but his patient died on the table from hemorrhage. The published account of this case did not come under my observation until sometime after my operation. I think now that my case is the only successful one on record. Dr. H. J. Garrigues, who was present and witnessed my operation (together with several other physicians of New York), in a small octavo, entitled: *Diagnosis of Ovarian Cysts*, says (p. 85):

"Pancreatic cysts of surgical dimensions are exceedingly rare. A few have been found in autopsies, but I have been unable to find that any has been operated before, nor that even the possibility of mistaking one for an ovarian cyst has been mentioned. The first part of this treatise was already printed, and the second in type when my material received a valuable addition, (operative case 59,) by Dr. Nathan Bozeman's extirpation of a large cyst of this kind. For the clinical and operative, as well as anatomical, details of this rare case I refer the reader to the report in the New York Medical Record, 1882, p. 46, and my paper, *ibidem*, p. 286. Here we have only to deal with the fluid and the surface which secreted it."

Just such circumstances as presented in the above case prompted McDowell to make his bold incision, which enabled him to secure the widest exposure of the peritoneal cavity, and such is the measure of the credit due him by the world. No surgeon forced to the necessity of this long incision can help feeling conscious of his immense indebtedness to McDowell for the establishment of the principle.

The second case referred to, in which the long incision of

McDowell proved to be a necessity, was a poor woman who did washing for her living, and was admitted into the St. Francis Hospital, Jersey City, in the spring of 1887, laboring under excessive uterine hemorrhage. An examination proved the cause to be a large interstitial fibroid tumor of the body of the uterus, extending down very near to the utero-cervical juncture. In view of the imminent danger to the life of this patient, and the favorableness of the case for hysterectomy, I was induced to undertake the operation, believing that from all the circumstances it was a justifiable procedure. My operation consisted in making the long incision of McDowell, lifting out the tumor, together with both ovaries, securing the pedicle in the lower angle of the wound with Keith's clamp, and cutting away the growth. The after treatment was the same as in the preceding case. The patient recovered without an untoward symptom, and after three years remains well.

Again, in this advanced stage of our improvements in abdominal surgery, I may be permitted to ask: What could I, or any surgeon have hoped to accomplish in such a procedure with the short incision? or, even with the medium incision, too restricted for access and the handling of the growth? I answer, nothing. Full exposure of the peritoneal cavity, with free manipulation, was the only alternative, and the result I feel warranted in saying fully illustrated the value of the principle emphasized.

I have said that the short and medium incisions, as described in the outset of these notes, had their special advantages, and that the first was readily convertible into the second, and so on into the long, as circumstances demanded. McDowell himself recognized in his third case the advantages of the linea alba for opening the peritoneal cavity, over those of an incision in the muscular walls outside of the recti muscles, and adopted the medium incision of the entire length of the linea alba below the umbilicus. Finding this did not admit of the easy completion of the operation, he extended the incision into his long, reaching two inches above the umbilicus; but the long incision was the fundamental principle upon which his pro-

cedure was based, that gave him light, space and easy access, which he preferred. This is what any judicious operator would do at the present time; and the only advance upon this teaching that has since been made according to my understanding of the subject, is that by far the larger proportion of cases of ovarian tumors met with in practice, can be and are removed by the medium incision, below the umbilicus, which McDowell thought was not large enough for his purposes. But just here are seen the overshadowing advantages of McDowell's teachings for the smaller proportion of cases met with in practice of which the case I have presented is a typical example, where the alternative was presented, long incision with success, or medium incision with failure and untimely death.

Of the short incision, now usually employed for exploratory purposes, and the removal of the uterine appendages, it is not my purpose to discuss, further than to say that where I have occasion to make an exploratory incision for determining the advisability of removal or non-removal of an abdominal growth of palpable size, I always prefer to make the medium incision, at least to the size of admitting my hand—the only means, as I believe, of obtaining a thorough and intelligent understanding of the object proposed. An incision shorter than this for exploration to discover abdominal or pelvic growths, diseased organs, or inflammatory products of whatsoever character, not palpable, has a certain range of usefulness there is no doubt; but whether this range has not already far exceeded its proper limits in the hands of the so-called laparotomists of the day, is a question for discussion, which I conceive to be of the greatest importance, requiring more substantial facts for its support. The mere drawing through a short incision one or both ovaries, with one or both fingers, as the case may be—a practice somewhat similar to that pursued by monarchs of the east, notably, Andramates and Gyges, kings of Lydia, for immoral purposes, centuries ago—cannot be accepted as a fact tending to strengthen the arguments adduced by the advocates of the procedure.

According to my convictions, ovaries that can thus be drawn through an incision of such dimensions as the short, are of far more use in the pelvis than out of it, considering the prospect of the madhouse; and those enlarged and fixed, really in a pathological state, are also better off where they are, than by any attempt to drag them out through an abdominal opening of less dimensions than an average medium incision, considering the prospects too often, of irreparable injury to surrounding structures. Experience and help tending to the relief and cure of this latter class of cases, I insist are in the line of scientific progress; and the less the pursuit of this rational way, though it be old, is interrupted by the intrusion of the knife, the more substantial will be the facts with which to settle this much-mooted question of the indiscriminate removal of impalpable ovaries, whether through short or medium incisions.

THE CONTINUED FEVERS OF ALABAMA.

BY JOHN PERKINS FURNISS, M. D., OF SELMA,

Grand Senior Counsellor of the Medical Association of the State of Ala.

In compliance with the request of the President to make a report of the continued fevers of Alabama, I issued 300 circular letters to the presidents, health officers, and other members of every medical society in the state. These circular letters contained interrogatories, replies to which I have endeavored to condense, and upon which I shall comment separately:

1. To what extent have these fevers prevailed in your section? And what has been the type of them?

Replies to this question have been varied. Some have reported "extensively," "considerable extent," "a great deal," "alarming extent," "limited extent," "moderate extent," &c. In no instance was the strict per centage given, but was estimated. So far as I could judge from the terms employed, they prevailed to the greatest extent in the northern counties, especially in Jefferson, where, according to one reporter, they (or rather it) have been endemic for the past fifty years. At a new railroad town in Clarke county there were eleven fatal out of thirteen cases. In the southern and middle sections of the state, long intervals have elapsed between outbreaks of continued fevers, while the intermittent, remittent, congestive, and hemorrhagic-malarial fevers have been common. Dr. Lovelady claims that no cases of continued fever have originated in the southern portion of Baldwin county since he has been a resident of that section. Wherever these fevers have prevailed, all reports admit that the number of cases has been less during the past three years than formerly. I lived in

Selma ten years before I saw a case; but since 1876 I have seen many, the largest number being in 1881, '82, '83, and '84. May and October were the months in which they were most prevalent. In this section intermittent and remittent fevers begin in July and continue up to October, sometimes as late as frost. Hemorrhagic-malarial fever occurs most generally after the weather becomes cool, and nearly always in persons who have had previous and repeated attacks of intermittent or remittent fever. In regard to the latter clause of the question, "What has been the type of them?" some of the reporters have misunderstood its purport, as they have enumerated remittent and catarrhal fevers among the class.

2. If more than one type, how do you classify them?

One reporter from Perry county states that our continued fevers are not fully intermittent, remittent or typhoid. Several reporters from other sections state that there are three forms which they call continued-malarial, typho-malarial, and typhoid fevers. The large majority of reporters recognize but one type—the typhoid—with difference in grade. A notable fact is, that those who entertain this opinion are residents of towns and cities, and are among the senior members of the profession.

3. What is the clinical history of typical cases?

A reporter of large experience and acknowledged ability, who says that typhoid fever is the only form of continued fever which has prevailed in his section for several years, furnishes the following clinical history of a typical case:

The development is gradual and is characterized by general malaise, anorexia, cephalagia, epistaxis, slight or severe bronchial catarrh, diarrhœa (liquidity of stools) or constipation, white fur on the tongue, accelerated pulse and febrile movement. The rise of temperature from normal (98°.4) is gradual. In the morning 99°.5, evening 101°; morning of second day 101°, evening 102°.5; morning of third day 102°, evening 103°.5; fourth morning 103°, evening 104°; fifth morning 103°, evening 104 to 105°. This rise of temperature is almost pathognomonic. If the temperature falls to normal the first

five days, the disease is not typhoid fever. I have seen taches rouges in but few cases, but in a large number of severe cases sudamina are abundant. Space does not suffice for any elaborate description.

Dr. Frank Prince of Bessemer, a practitioner who has devoted a great deal of time and attention, not only to the literature of the subject, but to practical observation and treatment of the fever which he calls "purely enteric, or what might be termed typhoid," says: "Under this head I could dwell for sometime upon the symptoms, but will only state some of the more prominent: general weariness and muscular soreness, pain upon pressure from the iliac of the right to the left side of the abdomen, tympanitis with more often thin, dark discharges, eruptions over abdomen, sometimes general, sometimes light, incoherent talking with delirium, but answers at first when aroused, are correct, often an effort to get up unless prevented by nurse, pulse 120, small thready, temperature 100° to 105°, always answers better when questioned as to how he feels, tongue very red on edges and glazed on tip with dry red and sometimes dark centre, often cracked and fissured entirely across, with dark sordes on teeth, and urine scant and high colored; these symptoms are often preceded by intense headache that has lasted for many hours, sometimes showing extravasated eye-balls, and exceedingly unpleasant tinnitus."

A reporter who has treated fifty-six cases within the past eighteen months, and who states that he has observed only one type, continued malarial fever, furnishes the following:

"White coated tongue, frontal headache, hacking cough during first week, a tender liver, an engorged spleen, a mild gastritis or gastro-enteritis, or latent pneumonia. Temperature ranges from 101° to 104°.3-4, pulse 90 to 126. Bowels constipated or diarrhœa with yellow stools. No eruption, unless by antifebrin or antipyrin. Mal-nutrition and mal-assimilation always present."

A reporter of Clarke county, where these fevers, of one type of different grades, have prevailed to a great extent lately, who says that the physicians in his section call them typho-malarial

fever, furnishes the following: "We have had a good deal of these fevers. We call them typho-malarial fevers. I think we have one type of different grade, some cases more aggravated than others. These fevers run from fourteen to ninety days, average about twenty-eight to thirty-six days. For four days fever is high; it looks as if you had a stubborn case of bilious remittent fever. Temperature 103° to 104°; in four or five days comes down to about 101° in the morning, 102° in the evening. Pulse about 90 to 110. Tympanitis, in some cases stupor, in some restlessness. Bowels either torpid or the reverse, in most cases torpid. Urine generally scant and high colored just as you find in bilious fevers.

"The physician who has had any experience in these fevers will always suspect the nature, and use care in giving mercury and quinine, though I believe in quinine in the first stages of the disease; but after three or four days I withdraw the quinine and use some diuretics, nitre sometimes, turpentine emulsion sometimes. I use some quinine all through the whole attack. In others I do not use any at all."

A reporter from Tuscaloosa county, who recognizes two distinct forms—typhoid, typho-malarial or continued malarial fever, gives this history: "General malaise, headache, loss of appetite, slight fever after first few days, with morning remission and evening exacerbation, the fever always lasting several days after convalescence begins, with a bad day and a well day; looseness of bowels in almost every instance from first to last except in more pronounced cases of simple continued malarial fevers, and even then there is a tendency to looseness, delirium, usually of low muttering form in advanced cases, and hallucinations, except in the malarial type, when I don't usually have any delirium, but simple fever protracted three or more weeks and most always complications in more severe cases."

A reporter from Blount county makes this distinction between typhoid and typho-malarial fever: "They develop gradually. The greatest difference between the two is, in typho-malarial fever the liver is very inactive, with constipation of bowels. Fever runs from 2° F. to 6° F. in afternoon.

Kidneys inactive. Urine very acid. Shorter in duration by half upon the average than the typhoid fever, which needs no history given anew to you. Typhoid contagious, typho-malarial not."

A reporter who believes it to be typhoid, modified by some other influence, probably malarial, answers: "Onset sudden in majority of cases. Temperature 103° to 104° F. during first twenty-four hours. Some cases were ushered in with chills of tertian variety. After three or four days fever became continuous, being higher in the evening than morning, but not conforming to the temperature of typhoid fever, but in every other respect they were typical ones of typhoid fever. When it first appeared it was of a very violent form, but became milder every year. The duration was from three to ten weeks."

A calm observer and a successful physician in the Canebrake says: "Malaise, chill night or day, followed by fever and subsidence, chill repeated, fever more prolonged, intermission less marked passes into a remittent type with daily exacerbations or twice in twenty-four hours, most usually from ten to twelve in the day, and same hour or later at night. The morning exacerbation lasting until late in the afternoon, and the nightly one until nearly or quite day. This continues variously, sometimes ending in three weeks and again extending into months. Many cases are aborted at the beginning with quinine, which to all appearances are like those which continue. One distinguishing feature between the continuous cases and others, is the utter worthlessness of quinine in arresting or controlling the paroxysms."

Another physician living in the same county, who says that he has never seen a case of pure typhoid fever in the county, and who has seen only one type which he calls continued malarial fever, says: "This fever simulates typhoid fever in some respects, but has other symptoms different. We have, instead of the characteristic diarrhœa, constipation and no eruption, but the duration of the fever with the other symptoms lead me to adopt a name malarial or continued fever. It is not a dan-

gerous fever, and very rarely proves fatal except from some intercurrent visceral complications. The bowels are usually constipated, the tongue is red at the edges but not usually very foul, and is never cracked and dry as the tongue of typhoid fever so often is. As to my personal experience, I would state that I have observed different grades of what I consider and have treated as the same fever. Every year I have met with cases of so-called walking typhoid fever, where the disease was so mild that patients, who were merchants, bank officers and house-keepers, would attend to their duties in the morning and lie on a sofa in the evening. I saw one case which presented all the symptoms, appearance and duration of typical typhoid fever, and yet the thermometer never showed any elevation of temperature. I saw another in which there was no elevation of temperature in the morning, and that in the evening was generally 100°. One evening it reached as high as 101°. The duration, the therapeutics, the exclusion of other diseases and the sequél, proved the character of the disease. In this case there was no pain, headache, delirium, epistaxis, diarrhœa or eruption, but there was a frosted tongue, iliac gurgling, slight tympany, lassitude and mental hebetude. In some cases the invasion was sudden and was attended with such nausea and vomiting as to suggest remittent fever. In most cases the invasion was gradual, as observed by other reporters. The whitish fur on the tongue which I call frosted, the iliac tenderness or gurgling, the range of temperature (evening rise and morning remission), the chilliness, the disposition to keep covered, the headache, the epistaxis, the bronchial catarrh, the mild delirium or muttering at night, the alternate flushing and sweating every ten to twenty minutes, the somnolence or stupor, the inutility of quinine, the prevalence and duration of other cases of fever of a similar kind in the community, arouse a strong suspicion of typhoid fever, and should make us place the patient on a safe diet. The bowels are constipated at first, but are apt to act excessively from mild cathartics. In the beginning of the second week they are loose, with thin yellow or clay colored stools, though I have known them to be consti-

pated throughout the attack. In the third week, in favorable cases, there is a gradual declension in the severity of all symptoms, and in unfavorable cases intestinal hemorrhages are apt to occur, or there is an aggravation of symptoms. The shortest duration I have observed has been seven days, the longest ninety days. The average is twenty-one days. If there is amelioration of symptoms from ninth or tenth day, and the temperature begins to rise instead of declining at the end of second week, another fourteen days' illness may be expected. In other words, whenever the symptoms indicate a recrudescence of the disease, my observation has been that whatever causes the disease requires ten to fourteen days to complete the cycle. Before antipyretics were used in this section, I frequently met with cases who had taken no medicine, where the pulse was not over 90° and yet the temperature was 105° at 4 p. m., notwithstanding the fact that the patient was constantly sweating profusely. I thought these were anomalous cases until I saw a description of them in Ziemsens' Cyclopœdia of Medicine, article, Typhoid fever. Many of the patients and their friends, when told that they had high fever, would express surprise, and would remark that they thought such a thing impossible when sweating as they were. In another class of cases, I have seen patients who were so much concerned about pain in the back of the head and neck as to make me suspicious of meningitis. In these cases several patients were not aware that they had fever, though they had a temperature of 102° in the morning and 103° in the evening. The headache generally lasted a week or ten days, and is not a prominent symptom after that time. In another class the bronchial symptoms during the first few days obscured all others by their prominence. In these cases I am disposed to think that the materies morbi gained entrance to the system through the respiratory tract.

"In still another class I have seen patients have fever for a week, be apparently well for a week, and then have another attack of fever which lasted three weeks. An intelligent merchant had an attack of continued fever which confined him to

bed a week. The fever left him on Saturday. I told him I had met with such cases as his where the patient concluded that I was mistaken as to the character of the fever they had and disregarded my precautions about preventing a relapse. He was much needed in the conduct of his business, and on Monday went to his store, where he was daily for a week, apparently well. Saturday night he was taken with fever which lasted twenty-one days. This was one of several cases which impressed me from the shortness of the duration of the first attack.

"Relapses have occurred in about five per cent. of my cases, counting a relapse as one which occurs after the patients had been free of temperature in from one to three days. Sometimes these relapses could be traced to imprudence in diet, and obstinate constipation from weakness and fecal impaction; in other instances I have failed to observe any other cause than a recrudesence of the disease."

In reading the reports of clinical histories of typical cases, it is evident that, though they may differ as regards the name, they all describe the same fever. In this complaint, such a statement as "There is nothing in a name," we physicians understand each other, whether we call them continued malarial fever, typho-malarial or typhoid fevers" is a great fallacy. The large majority of intelligent people are sufficiently educated to know that, in certain well recognized diseases, there are special dangers to be avoided, and particular precautions to be observed. Where the patient and his friends understand the nature of his complaint, he and they will co-operate with the physician in a variety of ways. Convince a patient or his friends that he has typhoid fever or pneumonia, and it is easier to get him to adhere to proper diet, or get him to avoid abrupt changes of temperature. Intelligent patients want to know what is the matter with them and they have a right to know. Where such knowledge will not produce shock, fear or despair, it is a good rule to inform them, if in so doing the object aimed at be to obtain co-operation and confidence.

(4.) Have autopsies been made in any of your cases, or those within your knowledge? If so, what lesions have been observed?

Only three replies report autopsies. In each the characteristic lesions of typhoid fever have been observed. Some reporters, who say they have observed the same fever in hospitals in other states and countries where autopsies were made, state that they were convinced that our continued fevers are varieties of typhoid fever.

5. In your opinion, how do these fevers originate? and how are they propagated?

Some reply that they originate from decaying animal and vegetable matter; others from germs peculiar to the disease; and that they are propagated by infection, by a reproduction of the cause which produced them, by contaminated drinking water, &c. Most reporters observe that protracted dry, hot weather seems most favorable for their production and propagation. That cold does not kill the germs of the disease, though it may cause them to be dormant, has been proved by the experiments of Prudden, in the laboratory of the College of Physicians and Surgeons, N. Y., who kept the bacilli frozen for fifty-four days, at the expiration of which time, after being thawed, they exhibited evidence of life and activity. In their habitats, I have thought the germs of typhoid fever were like those of chicken cholera, in that they will re-appear in a locality where it has once prevailed, though it may be dormant for a year or more, unless efforts have been made to eradicate them.

6. Have you met with cases of intestinal hemorrhage? If so, in what per centage of cases? At what period of the disease did it occur, and what was the result?

Where the exact numbers have been stated the average has been one in fourteen cases. One reporter, who calls all his continued fever cases malarial, states that he has encountered some cases of intestinal hemorrhage, and claims that he has prevented them by adopting precautions. The per centage of mortality as calculated from reports has been 66.6 per cent.

where the hemorrhage came on late, generally at the end of second week or beginning of the third. Where the hemorrhage occurred during the first week no fatal cases were reported, and when they were slight they seemed to exercise a beneficial effect. I had one fatal case at the end of the fifth week.

7. Do you consider these fevers contagious?

Some replies state that typho-malarial and continued malarial fevers are never contagious. A few believe that they are. The majority consider typhoid fever contagious through infected material, such as clothing, dejecta, contaminated drinking water, &c. Some who think it is communicated by continued exposure, and adduce instances where the members of a family and nurses have taken it, when visitors and physicians did not. In my community during the past twenty years, only one physician has had it, and he lived at a boarding-house where other cases existed. As a matter of precaution I never drink water at the house of a fever patient, and I always direct the discharges to be disinfected.

8. What treatment has been most successful?

All reporters have observed the inutility of quinine to abridge the duration of continued fevers, no matter by what name they are called. The treatment adopted by the large majority has been practically expectant, with what is claimed as a judicious use of anti-pyretics, especially antipyrin and antifebrin. Not a single reporter mentions having used the treatment of Dr. Brand, which has been so enthusiastically recommended by Dr. Simon Baruch, of New York, and favorably spoken of by Dr. Loomis. Brand's success was marvellous. He claims to have lost only one out of 342 cases. All replies show that no purgative is given after the first week, and strict attention is given to diet.

TUBERCULOSIS AS AN INFECTIOUS BACILLIARY DISEASE, AND ITS RELATION TO HYGIENE.

BY WILLIAM HENRY HUDSON, M. D., OF LAFAYETTE,

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Tuberculosis is a specific, infectious, mycotic disease. The discovery of the tubercle bacillus by Koch in 1882, marks the beginning of, unquestionably, accurate research.

In 1843, Klincke induced tuberculosis in animals by inoculation with tubercular material from man, but his work was practically lost.

Buhl had for years believed in the infectious nature of tuberculosis, but his views were not published until 1856. He held that it was an infection caused by the absorption of a specific virus. His theory was based on the constant co-existence of cheesy nodules and milliary tubercles. The cheesy nodules were looked upon as the remains of previous inflammation, and the tubercles recognized as the result of the absorption of a virus generated in the cheesy masses.

Vallerman published his numerous experiments in 1868. They were conducted on approved methods, executed with great care and accuracy, and guarded by the proper control—experiments; these reasonably demonstrated the infectious nature of tubercle. Soon after the publication of the work done by Vallerman, Cohnheim, Frankel, Wilson, Fox, Sanderson, and others, announced that tuberculosis could be induced by inoculations with indifferent substances, such as non-tubercular material, setons, pieces of cork, bits of glass, etc. Sanderson, however, claimed that nothing so positively produced the disease as tubercular material.

Klebs pointed out the possibility of accidental infection, and thought that pyæmia may have been mistaken for the tubercular process. Such appears not improbable under the present light. Cohnheim and Frankel failed in producing tuberculosis from non-specific material in their subsequent experiments, made with more care, and in localities probably not infected. Only a little later, in a moment of inspiration, as Koch says, Cohnheim and Solomonson selected the anterior chamber of the rabbit's eye for the point of inoculation. Here, the process could be watched from day to day; and, as primary, spontaneous tuberculosis of the iris was unknown in the rabbit, the possibility of this was excluded. They found that the inoculation of non-tubercular material did not produce tubercle, while the inoculation of specific tubercular matter was invariably followed by tuberculosis of the iris; and later, general tuberculosis of the body.

Tappeiner caused dogs to inhale tubercular sputum, sprayed into a narrow box in which they were confined. All became tuberculous; the 23d day being the earliest upon which tubercles were found. These, and other facts, reasonably demonstrated that tuberculosis was a specific, infectious disease. Cohnheim enthusiastically accepted this conclusion; and, according to Koch, sketched the etiology of tuberculosis.

The experiments of Wilson Fox were repeated in 1883, at his request, by Dawson Williams, with results entirely negative, which led to his renunciation of his former views. Finally, Sternberg, in 1885, injected ultra marine blue, and powdered glass into the peritoneal cavity of rabbits; the results were simple, non-specific inflammatory nodules. This seems to have settled the question of the infectious nature of tuberculosis.

In 1882, as before stated, Koch made his discovery, from which dates the accurate work on tuberculosis; and probably no scientific investigation of any medical subject has been so thorough, so perfect, and so convincing. His original article, in which his great discovery was made known to the world, and in which his methods were set forth describing his investigations, will ever remain a model to all future investigators.

Eight years have passed, and the physicians, the heralds of medical truths, are only beginning to awaken to the fact, that tuberculosis, the fell destroyer that walks in the darkness, and in the daylight, in the chill and in the warmth; that visits the infant, the youth, our manhood's prime and decrepit age, and that has an habitation in the animals of the field, and the birds of the air; is an infectious disease, with a principle that may be combatted and subjugated, as we have done that of leprosy, small-pox, typhoid, typhus, all the specific fevers, and all the known contagious diseases.

Of the thirty-five millions of people who die annually, more than five millions die of tuberculosis. The post mortem records show that one-third of all who die, from any cause, have, at some time in their lives, been infected with tuberculosis. Tuberculosis, then, being an infection, caused by a specific bacillus, with whose morphology we may become well acquainted, we will consider it in its relation to this micro-organism. The bacillus of tuberculosis is one of the smallest of known bacilli. It is a motionless rod, sometimes straight, at others slightly curved, occurring singly, in pairs, or in bundles, measuring from two to five u—, that is, one-half to one-third the diameter of the red, blood corpuscle; its width about one-sixth of its length, with rounded ends. When stained with aniline dyes, it may appear of homogeneous structure, or it frequently may appear beaded, colorless, and colored portions alternating—the ends are always colored—the colored portions usually number from five to eight. The bacillus, in the cycle of growth, undoubtedly, at some time degenerates into spores; and this beaded appearance has been regarded as indicating their formation; but there is still a difference of opinion, whether it is the colored or uncolored spots which are the spores. Dr. Cruikshank's high power photographs seem to show that the bacillus consists of a series of granules enclosed in a sheath, with intervening parts that do not take up the coloring. It would appear from this, that the spores are the parts stained by the dyes. The bacillus has no characteristics of form by which it may be recognized; its relation to the aniline dyes, alone, being its

distinguishing feature. The method of staining, which is the best, is that known as the Ehrlich-Koch:

Saturated alcoholic solution of methyl-violet,
or fuchsin..... ..... 11 parts.
Aniline water (two per cent aniline oil).. 100 parts.
Absolute alcohol..... 10 parts.

In staining sections, they may be left in this solution for twelve hours. After removing and washing the specimens in distilled water, treat them with one to three solutions of nitric acid for a few seconds; wash in alcohol, 60 per cent, for some minutes; after, stain with dilute solution of methyl-blue or vesuvian, or any other counter color, for a few minutes. Wash again in alcohol, 60 per cent, then dehydrate with absolute alcohol. Clear with oil of cedar and mount in Canada balsam.

To examine the sputum or any other suspected material for the bacilli, take a small quantity of the opaque or yellowish sputum, avoiding the mucous, with a loop of a small platinum wire, and spread evenly over a clean cover glass; or then you may press another clean cover glass against this, squeezing the matter between the two. The superfluity may be removed from the edges of the glasses by blotting paper, or anything that may be destroyed by heat at once. Now, slide the glasses apart so as to leave the thinnest possible film of sputum on each; put the glasses aside to dry; after drying take a glass in a pair of forceps, pass it three times through the flame of a Bunsen burner, or a spirit lamp, the layer of sputum being uppermost, using care not to scorch. If the rapid process of staining is desired, cover the glass containing the sputum with the coloring fluid dropped from a pipette. Then hold over the flame until the fluid begins to bubble. If the slow process is preferred, the glasses may best be floated in the coloring fluid, the layer of sputum downward, in a warm place, for ten or twelve hours. The remainder of the process is the same in each. After being colored, wash with distilled water, and then dip in a solution of nitric acid (one to three) for a few seconds, it is then washed in alcohol. The whole preparation is now colorless, except the tubercle bacilli, which is the

color of the dye that has been used. If you wish to show the cells and other bacteria that may be present, stain for a few minutes in a dilute aqueous solution of mythyl blue or vesuvin, which will give the contrast color. Wash in distilled water and allow to dry. Now place upon the slide a drop of Canada balsam that has been dissolved in xylol. On this place your cover-glass and the mounting is complete. The tubercle bacilli, in the specimen, will be the color of the coloring fluid used; the other bacteria, cells, etc., having the contrasting color. The artificial cultivation of the tubercle bacilli is somewhat difficult. The best medium for their growth being agar-agar, with 2 1-2 per cent. grape sugar, and 6 to 8 per cent glycerine added. Sterilized, solidified blood serum may be used, and is made better by the addition of the sugar and glycerine. The optimum temperature for their growth is 99.5 F. This may vary two or three degrees, above or below, and not greatly inhibit their growth. No growth takes place when the temperature is lower than 82 F. or above 108 F.

When a tube containing the media has been inoculated, which should be done by carefully placing the tubercular material, or, if from a culture, the bacilli upon the surface of the culture medium, which has been allowed to solidify in a slanting position in the tubes; no growth will appear before the tenth or eleventh day. At this time a growth begins slowly, and small whitish scales are seen. This increases until a thin, whitish layer spreads over the surface of the medium. Under a low power of the microscope, this growth is seen to consist of masses of bacilli, arrayed in spiral or curved lines, resembling the letter S, their long axes in the same direction. No growth will be seen below the surface of the medium. After a month they cease to grow and new cultivations may be grown by inoculating other tubes. In this way they may be kept alive without change in form or mode of growth, through an indefinite number of generations. Of course, a well acting thermostat is necessary for their artificial culture.

The results obtained by Koch have been verified by all investigators, great and small. And in no other case have the

requirements formulated by him, to prove that a micro-organism is the cause of the disease, been more perfectly carried out, with results more indisputable than in tuberculosis. These demands are as follows:

1st. That a special bacterium must be present in every case of the disease.

2d. It must be separated from all other micro-organisms and all particles of the organ in which it developed, and cultivated outside of the diseased animal.

3rd. A pure culture, when properly inoculated into the healthy animal, must reproduce the disease.

4th. The bacterium must be found in the animal in which the disease has been produced.

These were the requirements, and it is my opinion that in every case proofs may be adduced that a bacterium may be the cause of a disease without fulfilling these essential requirements. In typhoid fever we have a bacillus always present. It may be separated from other bacteria and cultivated outside the body; in fact we find it almost always in a pure state in the spleen. Here we have the first two essentials established. But the demands can not be carried further, because in no animal can the typhoid bacillus be successfully inoculated. Yet we are none the less positive that the typhoid bacillus is invariably the cause of typhoid fever. Therefore, if Koch's demands were less stringent, there would still be bountiful proof that the bacillus tuberculosis is the sole cause of tubercular diseases. The pathology of tubercle depends alone upon the presence of the tubercle bacillus. Baumgarten produced, by the introduction of hairs into the cornea of rabbits, a microscopically perfect tubercle. Tubercle, therefore, may be produced by constant and persistent irritation. Hence, there is nothing specific in this pseudo-tubercle.

There is no doubt that the bacillus acts like a foreign body, or irritant, with certain specific qualities; and that the constitutional manifestations are not due to the bacillus directly, but to toxic ptomaines evolved during its growth and multiplication in the tissues. The researches of Hoffa, Vaughn and

others have done much to elucidate the relations existing between the symptomatology of certain specific diseases and their bacterio-chemical causes. It is probable, from the work already done in this line, that all infectious diseases that are due to pathogenic micro-organisms, have their symptomatology from the elaboration of chemical poison by their causative bacteria. Nencki, on chemical analysis of tubercle bacilli, obtained 88.82 per cent. water, 11.18 per cent. solids. The solids yielded 22.7 per cent. of substances soluble in alcohol and ether, which, when injected into animals, showed the presence of a tetanizing poison. He did not succeed in isolating the substance. Alcoloidal organic bases have been demonstrated in tuberculous sputum by Bonardi. This, when inoculated into rats and guinea pigs, rapidly produced remarkable disturbances of the nervous system. These experimenters believed that these chemico-bacterial poisons are the causes of the sweating, fever and general disturbances of the nervous and circulatory systems of tuberculosis patients. There are certain peculiarities of constitution regulating the physical phenomena produced by these poisons. In some the smallest foci of tubercular infection producing the most marked disturbances, in others with infiltrating tuberculous cavities, or extensive diseases of joints producing only the slighest nervous and physical effects.

Is tuberculosis hereditary? At present, this is the most important question relating to the etiology of this disease. Heredity has been considered the great factor in tuberculosis, for ages. And to day this remains a stumbling block in the path over which physicians and people fall; and advance in the line of proper prophylaxis is impeded. No better example can be adduced, of the inherent power, in the human organism, of entailing peculiarities and characteristics than we find in the Jewish race. Here, we have through generations and through centuries, the transmission of features—they still have the Abrahamic face—and every peculiarity of manner and every distinct characteristic of mind and body, that marked them in their first history. In the domain of pathology, there exist certain peculiarities by which certain dis-

eases are transmitted. We know families who are rheu. matic through generations. We know the transmission of the gouty diathesis, and certain insanities and special deformities. But tuberculosis, beginning from an infection, and in most cases remaining a local disease, except when the system is overwhelmed by a large quantity of the bacilli, thereby becoming a general disease, must be catalogued infectious ; and taking the peculiarities of all the diseases, due to a pathogenic organism. It is true, some of these infectious diseases may be, in a certain sense, hereditary. The records show conclusively, that children, born of mothers suffering from malaria, the exanthemeta and other infectious diseases, often show at birth, or shortly after, characteristic manifestations of the maternal disease. But the hereditary transmission of tuberculosis is not accepted by many of our most critical patholo gists; and the proof is very meagre that the fœtus may be infected in utero. Congenital tuberculosis necessitates the infection of the fœtus with the tubercle bacillus. This must take place through one of two channels.

1. The ovum or spermatic fluid must contain the bacilli. In case they exist in the sperma, it must infect the ovum.

2. That it passes through the placenta from the blood of the mother, to the fœtus. The view that congenitel tuberculosis may be due to infection from the sperma, or ovum, is a mere hypothesis as yet unsupported by sufficient proof. Bender did not find tubercle bacilli secreted by tuberculous testicles; nor in that secreted by phthisical patients whose testicles were not diseased. Though Jani, examining eight men dying of phthisis, with non-tuberculous testicles, five times found tubercle bacilli in the spermatic tubules, and four times beneath the epithelium of the prostate in six autopsies. Rholps inoculated rabbits with the sperma of consumptives, in each case, with negative results. Virchow thinks that tuberculosis, from congenital infection, should show itself at an early period. And this he shows to be exceedingly rare, having no proof that it exists at all, and knows of no such case before or at birth. In cases of tubercular endome-

tretis, he found the fœtus without tubercle; and believed with a normal placenta, there is no infection through this channel. Malvol found that micro-organisms may pass the placenta, but only when in a diseased state. Cornevin and Thomas showed that the anthrax bacilli could pass from mother to fœtus; but Jani examined the body of a woman who died in the fifth month of pregnancy, from general, milliary tuberculosis, found not a trace of the bacilli in fœtus or placenta, although every maternal organ swarmed with them. We are also familiar with the fact that syphilis, variola, and relapsing fever may be transmitted through the placenta to the fœtus. All transmission through the placenta, of course, presupposes the presence in the blood of the bacilli. This Wichselbaum has demonstrated to be very infrequent. There is no evidence that the tubercle bacilli multiply in the circulating blood itself. In fact, it is very probable, it having been demonstrated that the blood serum has germicide properties that they are destroyed, or their growth greatly inhibited by this fluid. They unquestionably do enter the blood, when they become very numerous, in extensive and in advanced disease, producing scattered tubercles in the kidneys, liver and other organs. Weigert has pointed out a common source of bacilli in the blood from caseating tuberculosis of the wall of the vein, that had not been occluded by thrombosis. He has reported three cases, in which the splenic vein was involved, two of the portal vein, one of the hepatic, one of the azigos, two of the innominata, one the left internal jugular, one the supra renal and one the thyroid. It is interesting to note that half the cases observed, was in the pulmonary vein. Acute, general tuberculosis develops after having the blood overwhelmed with a sudden discharge of the tubercle bacilli. Here, we have a blood infection, which in some respects resembles the condition in other general infectious diseases. Charrin found in a seven and a half months fœtus of a tuberculous woman, which died three days after birth, tuberculous lesions of the abdominal organs. Jacobi found in a fœtus, born at the end of the seventh month, and which lived a few

moments only, numerous grey, milliary tubercles in the tissues of the liver, near the surface. Also, its peritoneal covering, the pulmonary plura, and the spleen. The liver is the place where we would naturally expect to find most frequently congenital tuberculosis. Merkel discovered cheesy nodules in the lymph glands, palatine arch, and back of the hip joint; but not in the lungs of the child, of a tuberculous woman, which died soon after birth. Demi once found the tubercle bacillus in the macerated fœtus of a tuberculous woman. This is the only instance in human pathology, where the proof of congenital tuberculosis, the presence of tubercle bacilli, has been found. Johnne discovered the tubercle bacilli in the tuberculous glands of a still-born calf.

It would appear from the foregoing facts, that the infection of the fœtus through the placenta from the blood, in diseases due to micro-organisms, that are abundant in the blood, as in anthrax, relapsing fever, malaria and such, is not infrequent. But, in tuberculosis, we have no proof of infection from the blood, even in cases where the bacilli are most abundant.

Baumgarten supports the view that congenital tuberculosis may be latent; that is, the tubercle bacilli may be transmitted to the tissues of the fœtus, and there remain inactive for years, or for life, until some traumatism brings about a favorable nidus for their development. Should this be true, it accounts for the presence of the bacilli in the lymph glands, marrow, bones, &c. Also, for some of the late manifestations of local tuberculosis; but this in no wise invalidates the argument of its non-hereditary nature. We have the same basis for concluding that enteric fever, relapsing fever, scarlet fever, or malaria is hereditary, as we have for the theory of transmission of tuberculosis. In these cases, the parent has the disease, and, in a few rare instances, the child, at birth shows the signs of the characteristic infection. My time or space will not allow an analysis of the statistics of infantile and adult infection. But, as we may suppose an accurate similarity of tuberculosis in animals and in man, Cornet's statistics of the

Berlin abatoir are not without interest. In three hundred and twenty thousand calves, only seventeen were tuberculous. In three hundred and ninety-eight thousand cattle, more than eight thousand were tuberculous. A disease is understood to be contagious when it has developed in the sick a principle that may be conveyed to the susceptible, through the excretions; or through the diffusion of the diseased products. These products in diseases due to micro-organisms must contain these specific microbes by emanations from the body of the sick, atmospherically conducted. Contagion from the body of the sick, in the light of our present pathology, means infection in all diseases, due to specific bacteria. We have proof that tuberculosis may be transmitted by direct contact, as in inoculation tuberculosis, and by the diffusion of the disease products, which contain the tubercle bacilli; and through food and drink, which have been infected by the bacillus. There are numerous examples of a direct transmission of the disease. It is needless to report here the experiments upon animals, heretofore mentioned. There are numbers of cases where wounds have been directly infected, as in accidental wounds made during post-mortem examinations of tuberculous subjects. Numbers of cases of circumcision, according to the Jewish rite, have been infected through tuberculous Rabbis. And there are other cases where injuries of the skin, coming in accidental contact with the sputum, or other material containing the bacilli, have resulted in local and general tuberculosis. Many experiments made by Cornet, and others, very conclusively demonstrate these facts. Numbers of such examples might be adduced; yet, the spread of tuberculosis, to any great extent, by direct inoculations would probably be impossible. Koch clearly demonstrated, that there was no natural growth or multiplications of the bacilli outside of the body of animals or of man. But the extreme longevity and hardihood of the bacillus, more especially of its spores, makes its existence external to the living organism by far the most important condition of its life history. Cadeac and Millet found, after drying and pulverizing tuberculous sputum, that

it was capable of giving rise to the disease for one hundred and two days. Schill and Fisher claim that its virulence is lost only after six months; while Pietro asserts that well dried sputum, maintained at a temperature of 77 F., preserved its infectious properties for nine or ten months. Corrosive sublimate and carbolic acid cannot be relied upon for sterilizing the sputum and other substances containing the bacilli, while twice boiling may not entirely destroy their virulence.

It has, for some time, been suspected that the spread of pulmonary phthisis is largely due to the inhalation of dessicated particles of sputum, or other material containing the bacilli or its spores. It is by some supposed, but I do not think the facts sustain their views, that there must be first a predisposition, or susceptibility before the bacilli assert their pathogenic influence. There may be instances of peculiarities of the tissues in which their power of withstanding all infections is diminished, but not more so in tuberculosis than in other specific diseases. There may be found differences in the degrees of respiratory movements, conditions or diseases of the epithelium; certain changes in the secretions and certain conditions of the circulation which may offer more favorable surroundings in some lungs for the development and multiplication of the bacillus, than in others. Certain it is, that all depressing influences, acting by diminishing the power of resistance in the organism, such as privation, hardship, alcoholism, syphilis, diabetic diseases, etc., offer favorable opportunities for the development of the disease. The crowding of children and adults in factories, prisons, schools, etc., conduces to a greater prevalence of tuberculosis. The effect of confinement has been already shown by the experiments of Trudeau. He inoculated two sets of rabbits with tubercular material; one set he confined in a dark, damp, subterranean place, while the other he allowed to run free in the open air and the sunlight. The former, when killed, was extensively effected with tuberculosis, while the latter was but slightly tuberculous. The percentage of mortality from phthisis in prisons is thirty to forty

per cent. of the total deaths, and in cloisters it often exceeds fifty per cent. Cornet has shown, by an analysis of the statistics supplied by official record of the German government, that the opinion generally entertained that nurses are not especially liable to tubercular infection is incorrect. He investigated the record extending over a period of twenty-five years of thirty-eight cloisters. Of two thousand and ninety-nine deaths, nearly two-thirds, one thousand three hundred and twenty, or 62.88 per cent., were due to tuberculosis. He further shows that the death rate among the nurse classes in the cloisters is remarkably increased, and that the age of greatest mortality among them is very much earlier than in other occupations, ranging from the twentieth to the fiftieth year, and that tuberculosis is the greatest agency in determining these results. The enormous prevalence of tuberculosis, in races of people in whom the disease has only lately taken its abode, is certainly due to infection, as also its great prevalence among animals confined in zoological gardens. Numbers of the Indian schools have been devastated by tuberculosis. The monkey, the chimpanzee, the animal nearest approaching the human race, and in whom, in their wild state, tubercular diseases are unknown, are most certain, sooner or later, to die of tuberculosis. These are clearly cases due to infection from the ordinary sources, by which we are daily surrounded. Liebermeister supports the view that tuberculosis is communicated by the dissemination of dried sputum, and has observed many cases where members of previously healthy families became infected by removing to a house formerly occupied by patients suffering with phthisis. The Johns-Hopkins Hospital reports give a case of a perfectly healthy infant of non-tuberculous ancestry, who, soon after its parents moved into a house recently vacated by a patient with pulmonary phthisis, contracted the disease.

Dr. Lawrence L. Flick, of Philadelphia, has made some very valuable and laborious observations, illustrated by a series of maps, locating the deaths from tuberculosis for twenty-five years in a single city ward. They show that 90 per cent. of

houses occupied with phthisical patients have infected houses adjoining them—that is, only ten, of a hundred, have failed to infect other houses. Thirty-three per cent. of all infected houses had more than one case. He also showed by diagrams that this house infection was very similar to small-pox, typhoid fever, diphtheria and scarlet fever—that is, that the grouping of pulmonary phthisis is identical with the other contagious diseases, and that it might be said to prevail in circumscribed epidemics.

The works of Cornet, which have been so thorough and have done so much to illuminate the whole subject of tuberculosis, have demonstrated that the tubercle bacilli disseminated through the atmosphere and taken into the lungs, by respiration, is the greatest cause of tuberculosis. This was believed, but lacked support until his experiments were made. He collected the dust from one hundred and forty-seven different hospitals, insane asylums and private houses occupied by patients with pulmonary phthisis; he also collected the dust from crowded streets. It contained in forty instances the tubercle bacilli, and in sixty-nine the bacilli were absent. In the remainder, the animals used in the experiments died from the action of other bacteria—the results in three cases not being conclusive. He also obtained the dust from twenty-seven rooms not occupied by consumptive patients. In these the results were invariably negative. He found in apartments occupied by patients with the most aggravated forms of the disease, where spit cups were used, no bacilli in the dust. It is useless to enumerate further experiments to establish facts so conclusive. His later investigations prove conclusively that the chief mode of transmission is by the infection of the air passages from the inhalations of dried and pulverized sputum, and other material containing the bacilli and its spores.

The experiments of Naegeli and others show that air passing over cavities, air passages, sputum or other matter containing the bacilli, do not take them up, therefore such material is innocuous as long as it remains in a moist state, unless it is carried by accident, ignorance or carelessness into the mouths or on the persons of others.

That tubercular infection may take place through the medium of the food, is no longer a mooted question. It has been demonstrated that the tubercle bacillus may remain in the gastric juice for twelve hours without losing its infective properties. This being true, the spores, of course, may withstand its germicide action for a much longer time. The intestinal secretions are much less powerful than the gastric juice—therefore, hardly entering into the consideration of the destruction of micro-organisms in the alimentary canal. It is now believed by all investigators that the tubercular ulceration of the intestines in the cases of pulmonary phthisis is not due, as was formerly supposed, to a general tuberculosis, but by direct infection from the accidental, and in some cases, intestinal swallowing of the sputum containing the bacilli.

Cornet reported at the Paris Congress for the study of tuberculosis, that he found that the tubercle bacilli, which were introduced in the intestines, penetrated very quickly the mucous walls. At the end of four days, after introducing into the œsophagi of guinea pigs a few drops of tuberculous cultures, he noted sub-mucous tubercular lesions in rapid generalization, but no epithelial changes, but the mesentery glands were filled with the bacilli.

There is no more important question relating to tuberculosis, than that of meat and milk infection. It is true that this will ever remain second in importance, in its causative influence to that due to the inhalation of the dried, pulverized, tuberculous sputum. But, in the latter, we have a simple proposition; a careful collection of the sputum and its destruction by heat. In the former, we have a question that is broad and important; and from its very nature, difficult of a proper method of accurate investigation, and more difficult to make laws tending to properly prevent its many dangers. It is very likely all our domestic animals may become infected by tuberculosis. We have examples of tuberculosis in fowls, caused by their ingesting the tuberculous sputum of phthisical patients, Cayrny reporting that an entire yard of chickens became infected by this means. But the principle danger is that from tuberculous

cows. Brush believes that tuberculosis originated in cattle, and shows that it is most frequent where the flesh and milk of inbred cows are most used. He even maintains that tuberculosis is unknown among the races who do not use beef and the dairy products as articles of food. But for conclusions from these assertions, we prefer to wait longer.

That tuberculosis is a common disease, the statistics of well regulated abatoirs furnish abundant proof. And its prevalence in pigs may be greater than in cattle.

The statistics that I shall give, showing the prevalence of tuberculosis in our food producing animals, I purposely limit. Of six hundred cows in the Edinburgh dairies, thirty-seven had diseased udders and tubercle bacilli were found in the milk obtained from six of these; probably a much larger per cent. than this were tuberculous. Spillman found that the stall-fed cows of Nancy were thirty to forty per cent. tuberculous. According to Aliantard, the proportion of tuberculous cattle in the United States, is twenty-five to thirty per cent., while Dr. Peters is of the opinion that the proportion of tuberculous cattle in Massachusetts, in numbers of herds, is from one to 100 per cent. In Russia the disease is unknown in the cattle indigenous to the south; but in the cattle of the north kept in stables, it may run as high as 50 per cent. Dr. Brush considers tuberculosis much more frequent in the cattle improved by in and in breeding, and it is true that many of the finest milk cows—in the best ventilated stables—supplied with the purest water and food, are those that may most frequently have the disease. The official report of the Berlin abatoir for 1887 and 1888, gives probably our most trustworthy statistics; and on this account, I will give it more fully than the rest:

Of 924,815 animals that were killed, the entire number of carcasses condemned as unfit for human food, was 5,783, the cause of seizure being shown in the following table:

General tuberculosis	2,435
Caseous pneumonia	14
Peritonitis	6
Dropsy	298
Scrofula	1

Ruptured stomach	5
Jaundice	84
Loathsome character of flesh	131
Bloody character of flesh	36
Rothlany	399
Trichinosis	311
Tapeworm hydatids	1,926
Echinococci	1
Actinomycocic	69
Calcareous concretions	67

Besides these cases of total seizure, single parts and organs were condemned from 23,297 cattle, 9 calves, 9,051 sheep, 19,459 pigs. Tuberculosis was detected in 4,300 cattle, in 8 calves, and 6,393 pigs, and the distribution of 2,435 animals whose entire carcasses were condemned were: Cattle 985, calves 8, and pigs 1,442, while 8,322 organs or parts were withheld on account of local tuberculosis.

I will go no further with the other diseases. Infection from the ingestion of tuberculous flesh must remain infrequent; as the thorough cooking must destroy, in most cases, the bacilli, which are usually very much degenerated from a lack of proper condition for growth. And though there is no proof that it ever takes place in the human being, it should be pointed out as a source of danger.

Professor Peuch fed pigs on tuberculous meat; he injected the juice of some into rabbits; he injected the juice from the flesh of a capon of tuberculosis into rabbits; they all became tuberculous, as proven in the autopsy.

In the milk of tuberculous cows, we find the great danger. It has been generally supposed, even by those who, recognizing the dangers that may be in milk of tuberculous cows, that it was necessary that there be tuberculosis of the udder for the milk to contain the bacilli. Such is not the case. The bacilli may be present where there is no tuberculosis of the udder or teats. Bang, examining twenty-one cows effected with general tuberculosis, with no signs of disease of the udder, found only two where the milk showed infectious qualities when inoculated in rabbits. As these cases were far advanced in the dis-

ease, he concludes that in less advanced cases there would be much less danger. He also found that the milk drawn from eight women affected with tuberculosis contained no virulent properties. But he thinks all milk from cows with this disease should always be suspected, because we could not tell when the udder would become diseased, and that even without this local tuberculosis of the udder, the milk may at sometime contain the bacilli.

Hirschberger reports the results of experiments made to ascertain the infectiousness of the milk of tuberculous cows. He attempted to settle—

1st. The frequency with which tuberculous cows give infectious milk.

2d. Whether the milk is infected alone when there is general tuberclosis, or whether it may be when it is only local. He tested the infectious qualities of the milk by injecting it, with every precaution, into the abdominal cavity of guinea pigs. He used milk five times from cows affected with a high degree of general tuberculosis; six times from cows affected only moderately with the disease; and nine times from cows with only a local tuberculosis of the lung. In these twenty cows the milk was infectious in eleven. In the cases of a high degree of general tuberculosis, the milk was infectious in eighty per cent. In the cows where the tuberculosis was moderate in degree the milk was infectious in sixty six per cent., while in those cases where the disease was localized in the lung it was infectious in thirty-three per cent. He only found the tubercle bacilli in one specimen of the milk, and therefore considers inoculation experiments more certain than microscopical examinations.

The investigations made by Dr. Ernst, of the Harvard Medical School, throw more light upon this subject than those of any other that I have been able to find. The preliminary preparation for this work was well nigh perfect. The farm buildings to be used were thoroughly cleansed from bottom to top—the old earth and animal excrement were carted away. All of the woodwork was scrubbed and then washed with one to one

thousand corrosive sublimate solution, while nothing was neglected in securing the most perfect drainage and ventilation. The effectiveness was demonstrated by every animal greatly improving in its general condition; some even appearing to become perfectly well. In securing the specimens of milk to be examined, every care that was shown in the preparation of the buildings, yards, etc., was taken. The udder and teats were first thoroughly cleaned, and the milk was received into sterilized Erleinmyer flasks with cotton wool stoppers. The specimens were then taken to the laboratory and placed in sterilized conical glasses, with ground glass covers. They were then allowed to stand in a clean refrigerator for twenty-four, forty-eight and seventy-two hours. At the end of this time, ten to twenty cover glass preparations were made of various parts of the milk and cream. They were then stained and examined the usual way. Samples were obtained from thirty-six different cows. All of them were more or less tuberculous, but in no case was the udder diseased. One hundred and fourteen cover glass examinations of the milk were completed, and in these seventeen contained the tubercle bacilli, that is, the bacillus of tuberculosis was found in 31.5 per cent. Seventeen samples of infectious milk came from ten different cows, showing a percentage of detected infectiousness of 27.7 per cent. It must be remembered that the finding of the tubercle bacilli in the milk is attended by more or less difficulty on account of their great dilution, and it is possible that they may not be found at all in the specimens of the milk that may contain them. It was found that the cream, after rising, is quite as likely to be infectious as the milk. It should be borne in mind that the udders in none of the cows were affected with tuberculosis, and in no case, excepting one, did the microscope reveal the presence of tubercle bacillus in the udders, and in this one only a single giant cell, containing a number of bacilli, although a very thorough search was made. He also made a series of very interesting inoculations in rabbits and guinea pigs, with the milk from various cows in varying quantities, and at different times. Forty-nine rabbits were successfully

used. Five were made more or less tuberculous as proven by microscopical examinations, the results being negative in forty-four, that is, they obtained 10.2 per cent of successful inoculations in rabbits. There was used in these experiments milk from thirteen different cows, which gives 23 per cent. for the cows that were used, that is, that the milk from 23 per cent. of the cows was infectious to rabbits. He also inoculated fifty-four guinea pigs that could be counted. In them we have twelve positive results, or 28.57 per cent. . . . There were used thirty-two specimens from fourteen different cows, and successful results came from six different cows, that is, 42 per cent of the cows were shown in this way to have infectious milk, and 37.5 per cent. of the specimens used were shown to have infectious properties. In his feeding experiments thirteen calves were fed for varying lengths of time with the milk from cows affected with tuberculosis, but as in the other cases, not of the udder. Of these one examination failing completion, should therefore be rejected, there were five positive results obtained and one suspicious, the latter being counted negative, because the tubercle bacilli were not found, though giant cells and granulation tissues were abundant. Three others, among those counted negative, because the tubercle bacilli were not found, though giant cells and granulation tissues were abundant. Three others among those counted as negative, were suspicious, and probably had a sufficiently thorough search for the bacilli been made could have been counted among the successes. But the five positive successes out of the twelve cases give us 41.66 per cent. as the number of healthy calves that became tuberculous by being fed upon milk from the tuberculous cows with healthy udders. Of the guinea pigs fed in the same way, 40 per cent became tuberculous—probably more, as two cases out of seven were thrown away without being examined, and in one a very hasty microscopical examination was made. He found tubercle bacilli in 28.57 per cent. of all the specimens of milk examined. He found the milk by inoculation experiments infectious in 50 per cent. And he found the milk infectious through the

alimentary canal in more than 50 per cent. Then experiments show:

"1st. And emphatically, that the milk from cows affected with tuberculosis in any part of the body, may contain the virus of the disease.

"2d. That the virus is present, whether there is disease of the udder or not.

"3d. That there is no ground for the assertion that there must be a lesion of the udder before the milk can contain the infection of tuberculosis.

"4th. That, on the contrary, the bacilli of tuberculosis are present and active in a very large proportion of cases in the milk of cows affected with tuberculosis, but with no discoverable lesion of the udder."

The foregoing experiments and facts prove very conclusively that tuberculosis may be communicated from animals to man. And especially are the young, whose food is frequently of necessity, milk, liable to this mode of infection.

I have already consumed more than my allotted time, and instead of discussing the prophylaxis of tuberculosis in a general way, will briefly state a few rules which are most important, selected from our best authorities:

"1st. Tuberculosis is a distinctly preventable disease.

"2d. It is not directly inherited.

"3d. It is acquired by the direct transmission of the tubercle bacillus from the sick to the healthy, usually by means of the dried and pulverized sputum floating as dust in the air.

"4th. Tuberculous meat and milk may produce the disease, when used as food."

The measures which we suggested for the prevention of tuberculosis are:

"1st. The dissemination among the people of the knowledge that every tuberculous person may be a source of actual danger to his associates, if the discharges from the lungs are not immediately destroyed or rendered harmless.

"2d. The passage of a law providing for the competent inspection of meat and dairy cattle, when practicable.

" 3d. That the only sure way of avoiding the dangers arising from meat, derived from tuberculous animals, is to subject such meat to a thorough cooking, which shall include the entire substance in depth as well as the surface. Meats completely roasted, broiled or boiled, are alone safe.

The thorough boiling of all milk before use.

"4th. To know that the sputa of phthisical patients, being the most formidable agent of the transmission of tuberculosis, there is danger in allowing these expectorated matters to be deposited on the ground or carpets, on drapery, screens, towels, handkerchiefs, clothing and bed linen.

"5th. To be persuaded that the use of spittoons is obligatory on all phthisical patients everywhere. Spittoons should always be emptied into the fire and cleansed with boiling water. They should never be emptied on dung heaps, on garden soil, (where they may tubercularize fowls,) nor into privies.

"6th. To refrain from sleeping in the bed of a tuberculous patient; to remain as little as possible in a room occupied by such person. This caution is especially applicable to children.

"7th. To sequestrate from all places occupied by phthisical patients, individuals considered as predisposed to tuberculosis; children born of tuberculous parents, or that have lately had measles, small-pox, pneumonia, etc.; all diabetic patients.

"8th. To avoid using objects which a phthisical patient may have contaminated (garments, bed clothing, toilet implements, playthings, etc.,) till after previous disinfection (in the hot air stove, by boiling water, sulphur fumigations, etc.)

"To insist that the rooms of hotels, sleeping cars, furnished houses, cottages occupied by phthisical patients at watering places or winter stations, shall be equipped and tapestried in such a way that disinfection may be easily and completely affected after the departure of each patient.

"It would be better that these departments should have no hangings or tapestry, and that they should be whitewashed; the floors should be bare, either oiled or painted.

"Hotels and furnished cottages in which such hygienic precautions and measures of disinfection are taken, should alone be patronized by the public."

PLACENTA PRAEVIA.

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Among the many dangers that surround women during pregnancy, I know of no state of affairs more deplorable than a placenta praevia, embracing, as it does, such imminent risks to both mother and child, and confronting the obstetrician with an emergency that calls into requisition the promptest action, coolest judgment and highest skill.

The object of this paper is not to dwell at any great length upon all the interesting details of this unfortunate condition, and the time allotted me permits of only a brief resume of the history of this subject, a glance at the status of the views entertained at the present day, and the relation of three cases. Over one hundred years ago, Dr. Rigby defined placenta praevia as praevia when it is fixed to that part of the womb which always dilates as labor advances. Playfair expresses it as praevia when the placenta is inserted in the lower segment of the uterine cavity, so that part of it is situated, partially or wholly, over the internal os. Barnes divided the uterus into three zones, and calls the placenta praevia when it is attached, partially or wholly, in the lower zone.

Three varieties of placenta praevia are described: If the centre of the placenta corresponds to the internal os, it is complete or central placenta praevia; if the placenta is only partially attached over the os, it is known as partial placenta praevia, while if the attachment of the placenta does not reach as far down as the os, it is called lateral placenta praevia.

Placenta praevia, is fortunately a rare complication of pregnancy, the combined statistics of Ameth, Klein, Collins, Hardy

and others, together with those of the Wurzburg Maternity and Paris Hospital of Clinics, numbering about six hundred thousand cases, there was an average of one placenta praevia to twelve hundred deliveries.

Many theories have been advanced in explanation of this unfortunate condition, but the real causes or true reasons why the placenta is attached in this abnormal position are as yet an unsolved mystery.

The most characteristic symptom of placenta praevia is hemorrhage, indeed, hemorrhage coming on in the latter months of pregnancy is always suspicious when there exists no obvious cause to produce it; bleeding is rare before the sixth month, or if occurring then the true state of affairs is often unnoticed and considered only an abortion.

The hemorrhage is unexpected, sudden and generally profuse; the flow of blood may cease, to recur again in a few hours, days or weeks; the woman is never safe until after delivery. Successive hemorrhages are more profuse and those coming on near full term are often frightful; after one or two hemorrhages premature labor begins, and each uterine pain separates a fresh portion of placenta and increases hemorrhage. The cause of hemorrhage is unknown; some believe it due to a loss of relation between cervical wall and placental tissue, a loss ascribed by some to the more rapid growth of the placenta, by others to the more rapid growth of the cervix, and still others consider it due to a shortening of the cervix at this stage of pregnancy, while some regard it as accidental, the position of the placenta rendering accidents more frequent. The os dilates as the hemorrhage goes on, but in some cases dilatation is slight even after much hemorrhage. When the os will permit the introduction of the finger the placenta can be felt and recognized by that peculiar boggy, gritty sensation unmistakable.

The mortality to the mother is high, from 8 to 16 per cent., and owing to the manipulations in this condition and the anæmic state of the patient from loss of blood, septicæmia is decidedly more frequent; mortality to the child is much greater, from 50 to 80 per cent.; the child dies from asphyxia.

That mode of treatment should be adopted that gives the best chances of life to both mother and child. When hemorrhage comes on before the viability of the fœtus, and when the hemorrhage is slight and non-recurrent, we should temperize and allow pregnancy to advance; treat hemorrhage as any other hemorrhage, cold applications to the vulva and abdomen, quieting medicines, and perfect rest in the recumbent position. This treatment must be continued unless hemorrhage persists, when more active measures must be resorted to. While pursuing this expectant treatment the family should be thoroughly informed of the danger and instructed to send immediately for assistance at the occurrence of threatening symptoms.

The active treatment consists in turning, rupture of the membranes, tampons and dilatation of the os. Murphy has had brilliant results. He inserts his fingers through the os, reaches the placenta, detaches it all around, introduces a Barnes bag, and after the os has dilated sufficiently he inserts another. This brings about uterine pains. After the os is fully dilated he gives ergot, and if the placenta is marginal, ruptures the membranes and leaves the rest to nature. If the placenta is central, he turns by the combined method and delivers as rapidly as possible.

Rupture of the membranes should be resorted to in all cases where it can be feasibly accomplished; the force and frequency of the pains are increased by the escape of the liquor amnii. If the hemorrhage is excessive from separation of fresh portions of placenta, recourse must be had to plugging the cervix, which generally proves efficient. Complete separation of the placenta was first introduced by Radford, and later advocated by Simpson. This method has very justly passed out of vogue and is seldom or never used to-day. Tamponing is not a modern method; it reaches as far back as 1776. Wiegand seems to have first used the tampon systematically. If the pains were active, and the presentation favorable, he left the tampon in situ to be expelled with the child. To tampon efficiently, a Sim's speculum should be introduced and tampons of absorbent cotton thoroughly wet in antiseptic fluid, firmly

packed into the vagina until it is completely filled, and firm, even pressure made over and around the cervix. It is best to remove the tampons within twenty-fours, and re-apply fresh ones if necessary. The tampon is used only when the os is not dilated, hard and rigid, and where immediate delivery is impossible. The benefit derived is that it produces vigorous uterine contractions, and effectually controls hemorrhage till the os is dilated and delivery possible. Turning is the remedy par excellence in this complication.

Braxton Hicks, in 1860, gave his method of performing version to the profession, and we pursue the same plan to-day. Introduce the hand into the vagina and insert one or two fingers into the cervix, and turn by the combined method, bringing the feet down and allowing them, or the breech, to form a plug to stop further bleeding. After effecting podalic version, do not hasten labor, but leave delivery to nature; the bleeding vessels will be effectually closed by the presenting feet or breech, and further hemorrhage prevented.

The following cases will serve somewhat, I trust, to emphasize some of the preceding facts laid down by leading authorities for our guidance:

Case 1.—On February 9th, I was called to see Mrs. B., living four miles in the country. I will state here that her family physician was sick, and I was requested to go in his stead. On the way to the bedside of the patient, her husband, who came for me, told me his wife was suffering from hemorrhage, and as she was pregnant he feared miscarriage. She had miscarried before. I ascertained that she was about eight months pregnant. I found patient feeling rather weak, though pulse tolerably strong. On examination I found the os only slightly dilated, not permitting the finger to reach the internal os. The hemorrhage had ceased entirely. I learned that she was walking to the fire-place, and without warning or premonition whatever, a gush of blood took place. She was considerably frightened at the suddenness of the flow and its quantity. About a pint of blood gushed out in a flood. She went immediately to bed and sent for the doctor. The hemorrhage

continued for half an hour in small quantities, but no more gushes. I saw her about two hours after first hemorrhage. She told me she had a slight hemorrhage about two weeks previously, and she thought then she would miscarry. That hemorrhage, too, came on suddenly, but perfect rest and quietude had enabled her to pass the succeeding two weeks in comparative comfort. I, of course, diagnosed placenta praevia; but as there had been no hemorrhage in over an hour previous to my arrival, and as the os was not dilated sufficiently for me to detect with certainty the attached placenta, and also the absence of all uterine pains, I decided to pursue the expectant treatment, and thereby sealed the doom of my patient. I wish to emphasize the assertion that in all cases where there is considerable hemorrhage after the seventh month of pregnancy, it is our solemn duty to precipitate labor, and especially is this true when the patient lives in the country, and medical assistance is not at once available. I gave her a toddy, cautioned her about the danger of any movements whatever, and put her on opium and black haw. She was resting quietly, free from pain, all hemorrhage had ceased, and as her health had run down, being in no condition to lose blood, and with a rigid, contracted os, I temporized instead of using the tampon and bringing about labor. On the night of the 15th, a tremendous hemorrhage occurred, saturating the bed and wetting her with blood back to the head. Her family physician was sent for immediately. He found the os still rigid and contracted, barely admitting one finger. The hemorrhage was frightful, the patient almost collapsed, and she died a short while afterward.

Case 2.—On March 7, 1888, I was called to see a negro woman in town; pregnancy about seven months advanced. She thought she was miscarrying. A sudden hemorrhage came on an hour before I saw her; no symptom to warn her of its approach. I found the patient weak and much prostrated from loss of blood. The hemorrhage had been considerable, and was still continuing though not so great. The os was dilated sufficiently for the passage of a finger, by which I de-

tected a centrally attached placenta, the woman being a primipara. I apprehended a tardy dilatation and immediately tamponed the vagina, and administered opium and ergot. I continued this plan of treatment for forty-eight hours, uterine pains failing to respond to the tampons and ergot, though two or three hemorrhages occurred during this time. About forty-eight hours after I first saw patient, uterine contractions began to come on and hemorrhage was profuse, I removed the tampon, found the os fairly dilated, detached the placenta on one side and turned by the bi-manual method, and brought the feet down within the mouth of the uterus. A few pains expelled the child, and the placenta soon followed. I found considerable difficulty in turning; the presentation was a lateral one, and the space between the detached placenta and uterine wall afforded small room for the manipulations, as uterine contractions were very active. The child was still-born. Evidently it had been dead several days. Possibly this case would have progressed further but for the dead fœtus, and very probably the death of the fœtus brought on labor rather than the abnormally attached placenta. The mother did well.

Case 3.—This case I saw in consultation, and then after the birth of the child, arriving on the scene just as the placenta was being expelled. This woman was also a primipara. The attending physician informed me that hemorrhage occurred two days previously. The hemorrhage came on suddenly; pregnancy had advanced to about full term. He examined her and found the os slightly dilated and a marginal placenta praevia. He pursued the expectant treatment. There were recurrent hemorrhages during the next forty-eight hours, but none of them alarmingly profuse. Labor pains came on after the first thirty-six hours and a dead child expelled, most probably asphyxiated several hours before birth. She complained of much soreness about the uterus, was put on hot carbolized vaginal injections, quinia and milk punches. In spite of all treatment, puerpral peritonitis developed, and she died three days later. The increased liability to septic troubles, should serve to make us exceedingly cautious how we expose the patient, and careful in producing slight traumatism.

SOME REMARKS ON RHEUMATISM IN INFANT LIFE.

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The case that suggested to me the subject of this paper was the following:

On December 15th, 1889, I delivered Mrs. H. J. of twins, (both male). Labor natural and easy. On January 1st, 1890, I was called to see one of the twins (the one born first). The mother said that ever since his birth she had noticed that he cried every time the napkin was changed, and that now he cried violently every time he was touched or moved in any way.

The child, being the larger at birth, had not increased in size, so that now he was the smaller of the two. The child nursed well, had a slight elevation of temperature, bowels regular, kidneys acted well.

Upon examination, I found no swelling of joints and no redness, but there was well marked tenderness, and upon the slightest motion he cried furiously. There were also enlarged glands in each groin, and two nodules on the superior curved line of the occiput, both of the latter being on the left side. There were no other bad symptoms. The mother had a severe "cold" at the time of her confinement, but had not had an attack of rheumatism for ten years. The father had never had rheumatism; no history of specific trouble could be obtained. In the absence of other indications, I prescribed for the child a simple liniment of aconite, chloroform, aqua ammonia, &c., and gave the mother sodium salicylate.

In a few days all the pains and tenderness had passed off, the child ceased crying upon being touched, and moved his arms and legs freely.

Now, while this may not have been a case of genuine articular rheumatism, it suggested a subject that is of great interest, from the fact that in infant life rheumatism has been regarded as exceedingly uncommon, some authorities even going so far as to deny its existence altogether.

In looking up the literature of the subject, I find several cases are reported even younger than this one. Pocock relates a case in the London Lancet (1882), in which a mother who was suffering from articular rheumatism gave birth to a child which was immediately discovered to be suffering from the disease. Shaefer, of Berlin, relates another, in which the symptoms developed within three days from birth. Kanchfuss relates two cases of infants at the breast, &c. Besides these, Winderhoffer reports a case twenty-three days old; Stäger, one of four weeks; Senator two cases six and eight months respectively; Henoch one of ten months. J. Lewis Smith says rheumatism is much more frequent in children than was formerly supposed, and relates several cases, though the youngest is twenty months. Flint says it occurs very rarely under five years of age, but may occur in infancy. He has met with a case of one year of age. Dr. Henri Roger (Childrens' Hospital, Paris), relates two cases, one of two years, and the other three. Syers (Westminster Hospital) relates one of one year age. Prof. Cheadle (Cyclop. Dis. Children) says he has never met with a well marked case under two years of age. Dr. Howard, of Magill University, Toronto, (Piffer's System, vol. ii, p. 20), says it is, par excellence, an affection of early life, the largest number of cases occurring between the ages of fifteen and twenty-five years. It is not uncommon in children between five and ten, but is rare under five years, although, now and then, one meets with a case at two or three years, and while the acute articular affections, observed in sucklings, are, as a general rule, either syphilitic or pyæmic, still some cases of genuine rheumatic polyarthritis are recorded.

I.

Fever and sweating, while almost always present in the adult, are, by no means, so in children. The fever is never so

high. Indeed, Vohsen says, that in twenty cases which had recently come under his notice, the fever, in no case, exceeded 103·2°, and in one case there was no fever at all. The fever does not continue so long as in the adult. Sweating is very slight in children, and we never find the little patient bathed in that acrid perspiration so common in the adult.

II.

Swelling and redness of the joints are never so well marked. Hence the disease is frequently overlooked, and mothers attribute the pains and tenderness to the so-called "growing pains." In Vohsen's twenty cases, before cited, swelling of the joints was observed in only three cases. The joint affection, as a rule, amounts only to some slight tenderness and stiffness, with slight swelling, confined, it may be, to only one joint, or, it may be, to several; but the child is generally able and does move the limbs, thus differing from that fixed position we see in the adult, and which the patient so dreads to change. The joint affection does not continue so long as in the adult. It subsides in a day or two, it may be to reappear in the same joint or to attack another.

III.

The tongue is seldom much coated. The thickly furred and dry, brown tongue, so common in the adult, is never seen in children.

IV.

The urine is rarely affected, though, in severe cases, it may become dark, acrid and lithatic.

V.

Tonsilitis is a very frequent symptom. It often ushers in an attack, or occurs during its course. Trousseau, indeed, recognized a "rehumatic sore-throat." The statistics of the collective investigation committee show that tonsilitis occurred as an antecedent to articular rheumatism in children in about twenty-five per cent. of the cases.

VI.

Heart disease. This is the most important part of our subject, both from its great frequency and from its danger. Many

cases of rheumatism are entirely overlooked, the pain, fever, &c., being attributed to some other cause, until the appearance of some one of the heart affections, forces the idea of rheumatism upon us. The younger the patient, the greater the danger of heart trouble. In infancy and early childhood, the liability is very great. At these periods the heart, and more especially the endocardium, rarely escapes; and the cardiac inflammation often precedes, by one or two days, the articular. In older subjects the heart affection usually sets in later, most frequently in the 1st or 2d weeks, and may not appear until the 7th week. Vohsen says that, in children, heart affections occur in at least fifty per cent. of all the cases, this complication being as apt to occur in the mild as in the severe cases. As to why the heart is so often affected in children, anatomy nor physiology offer us any explanation. Vohsen sums up his opinion on the subject by saying that "rheumatism is an acute infectious disease, and that it attacks the heart more often in children, because of its feeble powers of resistance."

The statistics of the collective investigation committee give, in males, 72 per cent. of heart affections in children, as compared with 46 per cent. in adults. In females, the difference is much less.

VARIETIES OF HEART AFFECTIONS.

1. Endocarditis is the most common, the proportion to pericarditis being six to one. Prof. Chaedle makes the following remark: "Endocarditis appears with the joint affection in the majority of cases, and a small proportion of children only escape it—if arthritis, then almost certainly endocarditis. In children arthritis is at its minimum, endocarditis at its maximum. But endocarditis often appears alone, the only expression of the rheumatic attack, or it may be accompanied by the appearance of the subcutaneous nodules, or chorea, etc., to be mentioned hereafter. The endocardial inflammation is usually confined to the left side of the heart and around the mitral valve, but the aortic valves may be involved with the mitral, or in rare cases, they are affected alone. It is usually subacute and is frequently protracted and relapsing. The first sign, or

it may be the only sign of the valvular inflammation, is a soft blowing murmur usually systolic at the apex. This may disappear after a few weeks or rapidly become more distinct. This is to be distinguished from the mitral murmur due to relaxation of the muscular walls (functional), which disappears upon the restoration of tone to the organ." The following points, however, are worthy of notice:

(1) A distinct mitral murmur is usually organic; it is commonly persistent and is indicative of endocarditis.

(2) An aortic obstructive murmur is also an almost certain sign of endocarditis.

(3) An aortic regurgitant murmur is organic without exception.

(4) Another sign of developing endocardial inflammation, especially prominent in early life, is the reduplication of the second sound, heard at the apex only, as distinguished from that heard at the base, which occurs in Bright's disease or pulmonary obstruction.

The inflammation, as it occurs in the heart, differs from that which takes place in the joints, in that, in the former it produces an effusion of lymph which does not occur in the latter. (Flint, p. 1016.)

2. Pericarditis is also very common, but is seldom found alone, being in the vast majority of cases complicated with endo or myocarditis.

Pericarditis is usually accompanied by a dull pain beneath the sternum and a sense of oppression in the chest. On auscultation, a friction sound can be heard most distinctly over the base of the heart. This soon disappears, as the effusion accumulates in the pericardial sac, which accumulation also increases the area of cardiac dullness and diminishes the cardiac impulse.

3. Myocarditis.—Dr. Maclayan is almost the only authority who recognizes myocarditis without the presence of either endo or pericarditis, but he claims that there are strong reasons to believe that the rheumatic poison may attack the heart muscle, without necessarily extending to either the endocar-

dium or pericardium. This inflammation of the heart muscle is, however, rarely extensive, and therefore not necessarily dangerous.

Graham, of Toronto, (before quoted) says that in a few cases the muscular wall is also involved, the structures being attacked just as the joints, viz: by elective affinity of the poison, their involvement being not regarded as an instance of metastasis, nor even as a complication, but as part of the disease.

4. Valvular lesions also occur, but I will not dwell upon them.

VII.

Subcutaneous nodules are especially common in children, though rare in adults. They may vary in number from one to fifty, and in size from a pin head to an almond. They are subcutaneous, firm, elastic, painless, freely movable, not usually attached to the skin but to the tendons, deep fascia periosteum, pericranium, etc.; the integument over them being usually free from heat, redness and infiltration, although exceptionally there may be some tenderness on pressure. They may appear in one crop, or only one at a time successively. They may partially subside and then return. They never become bony nor infiltrated with urate of sodium. Their evolution is not attended with pain, and rarely with an increase of temperature. They are found, most commonly, on the back of the elbow, the malleoli and margins of the patella, but occasionally occur on the extensor tendons of the hand or foot, (sometimes thus disabling the member for the time being,) on the spine of the scapula, the vertebral spines, iliac crest, the temporal ridges, the superior curved line of the occiput, the pinna of the ear, etc., etc. They are usually symmetrical. They remain various lengths of time, sometimes only a few hours, at others weeks and months and have been known to persist for two years and a half, usually, however, lasting about two months. Their selective site in the fibrous tissues, their constant association with other rheumatic manifestations, particularly with heart disease, and their liability to spontaneous

disappearance and their tendency to recurrence, leave but little doubt of their true nature. Indeed, Cheadle goes so far as to state that their chief association in children is with heart disease. It is his experience that they seem to appear with the cardiac trouble, and when they are numerous and recurrent are to be considered of grave import, as he has seen several cases, where the evolution and progress of the nodules proceeded, *pari passu*, with the cardiac inflammation, to a fatal issue.

Histologically, these nodules consist of fibrous tissue; they may be very vascular or only sparingly so; they rarely occur in the neighborhood of a joint, which is actively inflamed or contains an effusion. They are to be distinguished from the syphilomata, scrofulous nodules, erythema nodosum, etc.

Among the complications of rheumatism, pneumonia (with pleurisy) stands next in importance to heart disease. It occurs most frequently in those cases in which the heart has been attacked. Pneumonia occurs chiefly in three connections: (a) In a light degree in connection with pleurisy; (b) in conjunction with and probably dependent upon mitral disease and pericarditis; (c) in the embolic form, also dependent upon mitral disease.

Pleurisy certainly occurs as a rheumatic manifestation. Libert thinks it occurs in about 10 per cent. of the cases. It is most common on the left side and is frequently associated with pericarditis.

The characteristics of pleurisy, as it occurs in rheumatism, are: (a) The suddenness with which free effusion comes on; (b) the rapidity of its disappearance; (c) its tendency to reappear in first one side and then another; (d) its frequent association in children with endocarditis; (e) its marked tendency to become double; (f) it is often unattended with pain, though usually the pain is diffused over the affected side and persists during the existence of the effusion.

Active general congestion of the lungs has occasionally been observed in rheumatism, and is remarkable for its tendency to become rapidly fatal, one case proving fatal in five minutes, and another in an hour and a half from the first onset of the symptoms.

Chorea is very common in children in conjunction with rheumatism, though rare in adults, and while a very large proportion of the cases of chorea are probably rheumatic in their origin, the weight of authority does not agree with M. Roger in his opinion that all cases of this disease are due to rheumatism. The statistics of the collective investigation committee give 24.4 per cent. of antecedent rheumatic arthritis and 12.6 per cent. of concurrent, or immediately subsequent arthritis, and 5.6 per cent. of cases most likely rheumatic, having been preceded by vague pains, making a total of 42.6 per cent. of the cases of chorea due to rheumatism.

Dr. Barlow says that he had found satisfactory evidence of rheumatism, exclusive of family history in 57.3 per cent. of his cases. Cheadle puts it at about 73 per cent.

Chorea may occur at any time during the rheumatic attack. It may precede all the symptoms, it may occur during the existence of the arthritis, or in conjunction with the tonsilitis, erythema, fibrous nodules, heart disease, etc. When it is severe and occurs in connection with the heart troubles, it is of great gravity. The more frequent occurrence of chorea in children in this connection is probably to be explained by the greater impressibility of their nervous system. The disease is much more frequent in girls than in boys, the proportion being, according to the statistics of the collective investigation committee, nearly three to one.

DIAGNOSIS.

We are so accustomed to seeing rheumatism as it occurs in the adults, that we look for the fever, pain and swelling of the joints, and because we fail to find them in the child, we are apt to discard the idea of rheumatism and look for something else. Another frequent source of error is the fact that the manifestations do not always follow each other in regular course, or even appear at the same time. Thus, there may be the articular affection alone, or there may be, in addition, a pericarditis, or an endocarditis, or these may occur without any joint affection, or there may be chorea or fibrous nodules. Again, there may be heart affection, and this followed by the other symptoms, only after the lapse of months.

Arthritis is not always due to rheumatism, nor is endocarditis; they may be due to scarlatina or septic poisoning. Nor must the pains be confounded with those of beginning cerebral or cerebro-spinal meningitis, nor with those of acute periostitis. Again, the pains in the limbs in the early stage of infantile paralysis have often been mistaken for rheumatism, or even hip joint disease. Scrofula and rickets must also always be borne in mind.

The hemorrhagic diathesis, though very rare, may also, when present, give rise to painful joint affections in children. Glandular swellings may prove a source of error. If situated in the groin, they may give rise to pains in the limbs, very much resembling muscular rheumatism; if in the neck, they may produce a condition closely resembling torticollis. Sometimes these little glands are very difficult to detect. Rheumatism, in early life, is said to be more frequent in girls than in boys, the reverse of the case in adults.

CORNEAL ULCERS AND THEIR TREATMENT.

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The practice of medicine is not an exact science, and the remedies which, in the practice of one man give such eminent success, frequently prove miserable failures in the hands of another. Operative measures and surgical appliances have in many instances supplanted therapeutics. This is eminently true in the treatment of corneal ulcers, to the consideration of which I shall beg your indulgence for a short while.

It is a subject which is interesting, or should be, not alone to the specialist but also to the physician in general practice, particularly so to him who answers the calls of distress in the rural districts and the mountain regions, where it is not convenient to a specialist or where the expense of the trip would be burdensome and delay dangerous; where the emergency must be met promptly and where carelessness and neglect are productive of such hazardous results.

In my classification I shall follow Juler, except as to phlyctenular keratitis, which I shall consider under the head of phlyctenular ulcer, and will place it first; second, superficial ulcer; third, deep ulcers; fourth, serpiginous ulcers. I shall not attempt, in the short time allotted me, a lengthy dissertation upon the etiology and pathology, for that can be obtained elsewhere in perhaps better form than I could give it. I shall, however, mention some of the causes and appearances, together with the general management of ulcers, touching upon the indications peculiar to each, and concluding with a brief report of some cases.

First, as to phlyctenular ulcers. They are supposed to be

due in some way to a vitiated condition of the circulation, to ciliary irritation, or to scrofulous diathesis. Some claim that it has its origin in a nerve bulb, and in this way, perhaps, we might account for the excessive irritability and photophobia which are so characteristic of phlyctenular ulcers. It appears as a small vesicular elevation, breaks down and forms a small grayish-white ulcer. It is characterized by an intense photophobia, lachrymation and ciliary congestion; is usually quite superficial and easily managed. Some cases, however, prove troublesome and treatment is attended with considerable difficulty on account of the resistence on the part of the patient. In some cases they become chronic and follow each other in rapid succession; in other cases a group becomes confluent, and by fusing, from a larger and deeper ulcer, which may cause trouble.

Superficial and deep ulcers I shall treat together, as the chief difference consists in the degree or extent of the ulcer. Foreign bodies are important factors in the causation, in this section, where so large a portion of the population are employed about coal mines, ore mines, rock quarries, furnaces, mills, railroads, etc., the opportunities for getting foreign bodies in the eye being so numerous.

Another frequent cause is infection. (1) From gonorrhoeal ophthalmia, which is one of the most difficult to control, the most rapid in its progress, and the most dangerous of all acute ocular troubles. (2) From the virus of contagious diseases, such as small pox, syphilis, diphtheritic deposits, granular conjunctivitis, etc. Some ulcers occur idiopathically, where no cause can be assigned, except the general constitutional condition of the patient. Beginning as a small inflammatory point, the process extends, taking in more and more of the tissue, circles of infiltration form, pus develops, burrowing between the corneal tissues, and we have an abscess, from which we get, by gravitation of the pus downward, onyx, or hypopyon, the pus finding its way through into the anterior chamber and collecting at the lower part. Here, under favorable circumstances, the process may be arrested and resolution take place with absorption of the accumulated pus, or from the necrotic

condition of the tissue the cornea gives way, and we have rupture with escape of aqueous prolapse of the iris and recovery with anterior synechia remaining. Where the circumstances are not so favorable and the eye does not recover, the inflammation extends to the iris and thence to the choroid, with panopthalmitis and destruction of the eye.

The serpiginous ulcer begins in the anterior elastic layer usually, sometimes as an abscess with an unbroken condition of the surface; in other cases as a superficial ulceration, which spreads irregularly along the course of the scleral margin, encircling the cornea and cutting off nutrition to the central portion. The infiltration and accumulation of wandering cells is usually confined to the outer elastic layer (Bowman's membrane). Sometimes the pus forces its way through Decemet's membrane, which has greater resistance than Bowman's, and finds its way into the anterior chamber.

Verdese claims that no wandering cells are to be found in Decemet's membrane, whereas Bowman's membrane is filled with them; and that the seat of the disease, therefore, is never in Decemet's membrane; that the hypopyon is due to rupture of Decemet's membrane, allowing the pus to pass through; the lymphoid cells having reached Fontana's space by gravitation, pass through, and by their irritating properties set up an inflammation of the sheaths of the vessels; new abscesses are formed, resulting in new centers of infection. This state of affairs may extend to the iris, to the ciliary body and to the choroid, causing adhesions or even a panophthalmitis.

The treatment of ulcers should, under all circumstances, be preceded by a careful examination of the case, as to the nature of the trouble, the age and circumstances of the patient, physical condition, &c. A definite and accurate diagnosis of the particular form of ulcer with which you have to deal should be made, and then a rational and systematic line of treatment adopted. Where the ulcer is small and irritable, lachrymation and ciliary irritation, hot fomentations, leeching or cupping the temples, and instillations of atropia are indicated. Belladonna controls the accommodation, enforces rest, and pre-

vents capsular adhesions (posterior synechia). In some cases in which belladonna does not act well or where the ulcer is sluggish and needs stimulating, or where it is near the corneal margin and there is danger of rupture, eserine is preferable. The compress bandage is a very useful adjunct to the treatment, and is applied as follows: small pads of absorbent cotton are made, smoothing them out evenly, and applied until the prominence of the orbital ridge is not felt when pressed upon by the palm of the hand; over this a flannel roller bandage is applied. In case there is no one able to apply the bandage properly, an elliptical shaped pad is preferable. This can be secured by tapes attached to either side of the pad, and tied behind the head. The pad may be made of card-board and covered with cloth of any texture.

Besides supporting the eye and preventing staphyloma, the bandage acts as a stimulant, and aids in the absorption of the inflammatory deposits. By the supporting property of the bandage the cornea is kept in tact, the escape of aqueous is prevented, and all the ills resulting therefrom, to-wit: entangling of the iris in the wound, permanent adhesion, and in some cases, an extension of the inflammation through the iris to the ciliary body and choroid. Boric acid in solution (10 grs. to f.ʒi), or as powder dusted on the surface, proves serviceable in some cases; but the two measures to which I desire to call your attention specially, are the use of the actual cautery or thermo-cautery, and paracentisis. The cautery in small or phlyctenular ulcers and in serpigenous ulcers; tapping when the ulcers are deep, with probability of breaking through, to prevent rupture and also for its antiphlogistic effect.

Saemisch's method, which consists of an incision made through the base of the ulcer, has the additional advantage of aiding, by its stimulating effect, in the restoration of the carious tissue to a healthy state. It is accomplished by passing a knife, preferably, a cataract knife, through the healthy tissue at the edge of the ulcer, passing directly through the base, and coming out on the opposite side, allowing the aqueous to escape gently, to avoid injuring the iris or lens. If there be pus, either hypo-

pyon or onyx, it may be removed while tapping. In some cases where the pus is stiff and does not pass out readily, it may be caught with forceps and drawn out.

As to the first form, phlyctenular ulcers, the treatment is simple. Atropia to relieve the irritation, and calomel dusted on the surface or else the yellow oxide of mercury in the form of a salve, as a stimulant. This mode of treatment will usually cure your case, but in some instances it will drag along for a month or more, and where the ulcer appears on the margin of the cornea one may follow another in rapid succession, or they may appear in numbers encircling the cornea. In these cases some tonic or constructive treatment may be necessary. Sugar, candies, and cakes should be prohibited. The actual cautery has given in many cases in my practice excellent results. A platinum wire or probe is heated to a white heat and applied quickly to the apex of the ulcer, and all the carious portion destroyed. A healthy sore which heals rapidly, sometimes in twenty-four hours, is the result. This idea was suggested to me by an article from Dr. David Webster of New York, in which he reported some cases of episclerotitis treated successfully with the actual cautery. I tried the treatment, first, in cases of phlyctenular conjunctivitis with very excellent results, after which I used it in corneal ulcers of a phlyctenular character. In the management of ulcers from foreign bodies, of course the indications are for the removal of the offending substance, after which the treatment is the same as in ulcers from any source.

The treatment of ulcers from purulent ophthalmia is more difficult on account of the infection which is conveyed to the cornea by contiguity of tissue, and of the interference of the circulation by the chemotic condition of the conjunctiva. Noys gives as causes of ulceration from purulent ophthalmia, the three following: (1) Pressure of swollen tissues. (2) The corrosive action of the secretion with which the eye is kept constantly bathed. (3) Direct continuity of inflammation to the substance of the cornea. The object to be obtained by treatment, is relief from the congestion and the pressure

exerted by the lids. Thorough cleansing is necessary to provide against the corrosive action of the secretion. Surgical treatment is only indicated in ulcers occurring during the latter stage of the disease. In the early stage any operative procedure would be difficult on account of the intense chemosis, and is impracticable because it would increase the chances of infection. The treatment, therefore, is general, and must be of an antiphlogistic and germicidal character, such as nitrate of silver in solution of various strengths, leeches and cups, and iced pads. The ulceration is usually so rapid that the eye is in many cases ruined before the nature of the disease is fully appreciated, hence the necessity for an early diagnosis and a prompt and vigorous course of treatment. The application of iced pads is the sheet anchor. The result in a large percentage of cases is very disastrous. Usually the ulceration develops during the active stage of the disease, but not always. Where it occurs after the suppuration has partially subsided, and the chemosis has disappeared, paracentesis sometimes gives good results. As to diphtheritic ulcerations I have but little to say, having treated only one case in which the diagnosis was positive. In this case there was caries of the entire corneal tissue, with necrosis, and hence a complete destruction of the eye. There was also diphtheritic deposit on the conjunctiva, both ocular and palpebral. The treatment is such as would be indicated in deposits of similar character elsewhere. The result of treatment is not very flattering.

In the treatment of serpigenous ulcers, nothing acts so promptly as a platinum probe, heated to a white heat and applied. Dr. Gruening, of New York, has devised a probe for the purpose. Under cocaine the operation is painless. The sluggish spreading ulcer is converted into a healthy one, the septic matter being destroyed and the tissues exposed to the action of antiseptic and cleansing washes. Ricord has laid down a system of treatment, based upon the idea that the trouble is due to defect in the lachrymal apparatus, opening up the canaliculi and irrigating the lachrymal passages with antiseptic solutions. He then washes out the conjunctival cul de

sac with antiseptic solution, and cauterizes the surface of the ulcer with the thermo-cautery. If there be pus in the anterior chamber, perforate the cornea with the cautery and evacuate it; use solution of eserine four or five times daily.

Juler mentions obstruction of the nasal duct as a cause, and hence the operation for relief of the dacryocystitis as a part of the treatment. The compress bandage he uses as a protection against light and friction, and claims to get excellent results from scraping the edges of the ulcer. Dehenne places dacryocystitis first among the causes and treats accordingly.

Mules reports a case of deep crescentic ulcer treated successfully by scraping and applying iodoform. There are other methods advocated, but I shall not detail them.

I will now relate a few cases illustrating the measures advocated in my paper.

Case 1.—Wm. M., colored, miner, corneal ulcer from foreign body. The ulcer was deep and very sensitive to light; after about ten days of treatment, kept up irregularly, I found the ulcer was extending. I had used atropia, eserine hot, fomentations and compress bandages to no purpose, and decided to try paracentesis. Each tapping afforded some relief, but the trouble was not controlled nor the pain entirely relieved, until the base of the ulcer gave way and the anterior chamber thoroughly emptied. In this case the patient did not receive the attention he needed, being so far from the city that I could not see him as often as I should have done, nor was he able to purchase the remedies ordered. After the rupture had taken place, the eye improved steadily under hot fomentations and compresses, thus demonstrating the efficacy of a complete emptying of the anterior chamber. The trouble, however, does not always end here, sometimes the inflammation extends to the iris, thence to the ciliary body and choroid, with suppurative choroideitis and loss of the eye.

Case 2.—Z. P., male, white, age thirty, employe of rolling mills; old case of granular lids; had corneal ulcer, with considerable pain and intense photophobia. The eye improved under the ordinary methods of treatment for about ten days,

then it began to grow worse; did a paracentesis several times, used the actual cautery, carbolic acid, etc., to no purpose; eserine was then substituted for the atropia and a free paracentesis (Saemesch's) was done. The eye began to improve at once, and continued uninterruptedly to recovery.

Case 3.—J. S. W., male, white, age about forty, occupation engineer. While blowing into the spout of an oil can blew some oil into his eye, setting up an inflammation of an intense kind. When he came to me, about one-third of the cornea, the lower portion, was abraded and suppurating, ulcer spreading irregularly but not deep, cornea hazy beyond the line of ulceration with hypopyon. After a few days of treatment I did a paracentesis, letting out some of the aqueous and a small portion of the pus. Gave recipe of eserine and boric acid. Two days later, the patient returned, the ulcer had extended considerably; cauterized the ulcer with heated platinum wire, and gave atropia in place of eserine. Patient returned four days later; the ulcer had not extended any and looked much cleaner and healthier; amount of pus diminished. The eye after this improved steadily, but as the cornea was very much weakened, and showed signs of bulging, the compress and instillations of atropia and boric acid were continued for some time. The eye recovered with quite a considerable leucoma extending over the whole of the lower half of the cornea.

Case 4.—Miss Thomas, female, white, age 16 years; a delicate young girl who had never menstruated regularly, had never been stout, and for the past year had been troubled with one of her eyes; recently a number of little ulcers had developed at intervals, and finally two or three had run together, forming one large one, which caused considerable pain, photophobia, &c. From this ulcer had developed a large staphylomatous tumor, which protruded from between the lids. The patient had been suffering intensely for two or three days, and had not been able to sleep. The iris had been drawn into the tumor, which was at the sclero-corneal junction. After cocainizing the tissues, an incision, with a cataract knife, was made through the upper half of the tumor, cutting upward as in

cataract operations, and with scissors removing the excess of tissues. There was an escape of aqueous, but nothing more. The protruding portion of iris was excised, and the eye washed with solution of bichloride (1 to 5000), after which a compress was applied. The patient enjoyed a comfortable night for the first time in three weeks, and underwent no further suffering. The eye was dressed regularly, and a two grain solution of atropia used three times a day. The improvement was rapid, and in four weeks the eye was well, with scarcely anything to show, save a small scar, and a slight irregularity of the pupil. Three or four times during treatment a paracentesis was done, not through the ulcer but in healthy tissue, to prevent a return of the staphyloma. This case was remarkable for the immense size of the staphyloma, the speedy relief from pain and for the excellent result obtained.

Case 5.—This case is one of ulcer from granular conjunctivites. The treatment of ulcers from granular conjunctivitis and purulent ophthalmia is difficult, because the exciting cause is present to counteract any effect which might be obtained by treatment. The patient, a young girl fifteen years old. Paracentesis was kept up regularly for five or six weeks, until the ulcer had entirely healed; treatment for granular lids was kept up at the same time. At the first visit an application was made of silver in solution, and atropia and boric acid ordered. At the next visit there was considerable bulging of tissue with hernia of the iris; a peracentesis was performed. The pain was relieved and was never so considerable again, as the tension was kept down by the repeated tappings. This was done as often as there were any indications for it. As the ulcer in this case was near the corneal margin, eserine was substituted for atropia as soon as the hernia began to show itself. This did not, however, prevent the prolapse. The eye was kept bathed and boric acid dusted on the surface regularly; a compress was kept applied persistently.

Case 6.—H. W., male, black; Horse creek; came to me with what seemed to be an abscess at the sclera-corneal margin above. He gave history of syphilis, but there were no other

manifestations of it at that time. I incised the supposed abscess but got no pus, and deciding that it was syphilitic gummata, put him on specific treatment with pilocarpine as a collyrium; about ten days later the patient returned with a staphylomotous development. I removed a small section of the tumor, which extended into the sclera, and after washing and dusting with boric acid, applied a compress. The patient was allowed to go home. Four days later he returned; there had been no further trouble, but to keep down the tension another paracentesis was done. The constitutional treatment was continued. The wound healed kindly, and the patient never complained of pain after the operation.

Other cases might be added, but it is not necessary; and I shall feel amply repaid if my paper shall prove a stimulant to the more thorough study of the subject, on the part of the physicians of the state of Alabama.

MULTIPLE NEURITIS.

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In 1864 Duméuil, of Rouen, published the following case, which was the first in which an autopsy verified the existence of paralysis, due to degeneration of the peripheral nerves without spinal lesion:

"A tailor, aged sixty-one, after suffering from prickling in the toes for two weeks, was suddenly taken with weakness in the left arm and right leg, and a few days later by the same paresis in the left leg. Within five days he could not stand or walk. The paralyzed feet hung flaccid and were totally paralyzed; the thighs could be moved freely. Anæsthesia was found on the right sole and calf, and on the left foot and outer side of the leg. In the muscles of the hands and forearms considerable atrophy, with paralysis, developed. Faradic contractility in the paralyzed muscles was abolished. He complained of a painful numbness in the paralyzed limbs up to the knees, and involving the hands. No improvement; death in four and one-half months."

"Autopsy: Spinal cord and nerve roots normal. The finer nerve branches in the legs and hands were degenerated, only a small number of nerve fibres being found. Single fibres showed no continuous myelin sheath, but this was segmented and granular. There was an increase of connective tissue, and many fat cells in the nerves."

Previous to the publication of this case, the existence of diseased conditions of the peripheral nerves had been suspected as furnishing a rational explanation of many motor, sensory and trophic disturbances, but there were no reliable observa-

tions confirming such suspicions. Graves, the eminent clinician, had said that "all writers upon nervous diseases devoted all their inquiries in search of functional changes to the cerebrum, cerebellum or spinal marrow, forgetting that the causes may be resident in the nervous cords themselves, or their extremities." Magnus, Huss, Lancereaux and Duchenne had given accurate descriptions of alcoholic nervous symptoms, misinterpreting, however, their true nature and ascribing them to central lesion. Duchenne recorded many cases which he termed "general subacute ascending spinal paralysis," characterized by sensory, motor and trophic disturbances. In his opinion these cases were due to a gradually ascending lesion in the spinal cord, and this was in accord with the consensus of professional opinion when Duméuil's observations demonstrated their origin in a widespread inflammation of the peripheral nerves. Subsequently the investigations of Leyden, Eichorst, Joffroy and Grainger Stewart in Europe, and Allen, Starr and Hun in this country, confirmed the opinion of Duméuil and established for peripheral neuritis a distinct nosological position upon which many motor, sensory and trophic troubles are frequently dependent. To Leyden, probably more than to any one else, we are indebted for its differentiation from other conditions with which it had been confounded, for in investigating atrophic paralysis he found that with the exception of the disease under consideration, they were all due to either degeneration of the anterior gray horns of the cord, or of the motor crainal nerve nuclei, while multiple neuritis was a disease due to degeneration of the peripheral nerves without involvement of the cord; a disease characterized by atrophic paralysis, associated with sensory symptoms, tenderness in the nerves, and generally terminating in recovery.

The lesions found in multiple neuritis have been closely studied by Eichorst, Leyden, Oppenheim and Strümpell, and occur with almost absolute uniformity in every case. They are those of degenerative inflammation, in fact of "secondary degeneration" so ably elucidated by Waller. Early in the disease the nerve is swollen from infiltration of its substance by

tymphoid cells. Sometimes its consistency is changed from breaking down of its histological elements. Later, as the result of cell proliferation, and pressure within the sheath, the myelin becomes broken up into a granular debris, and the axis cylinder, the functional element of the nerve, undergoes a solution of continuity which unfits it for the performance of its functions—to conduct nerve impulses. But, even before this disintegration of the axis cylinder occurs, there may be complete paralysis, with loss of electrical irritability, since, as Gomers suggests, the myelin from its liquid consistence diffuses pressure equally upon each inter-nodal portion of the axis cylinder, and at the same time probably has an insulating action from its diseased condition, may render the nerve unequal to the task of transmitting nerve impulses. The active increase in quantity and the swollen and homogeneous condition of the myelin, subsequently becoming split up into segments, together with the growth and fission of the nuclei, and the pressure of the liquid protoplasm inside the sheath of Schwann, consequent upon the inflammatory process going on, causes at first an enlargement of the nerve, but later on, when the disintegration of its tissue has advanced to its full limit the granular debris which is formed becomes absorbed, leaving the sheath empty and collapsed. Hence, when the inflammation has been widespread the nerves may present every variety of lesion, from simple inflammatory infiltration to complete destruction of the axis cylinders with empty and collapsed sheaths.

It is still an undecided question among pathologists as to whether the inflammation originates with greater frequency in the parenchyma or connective tissue, and while it is conceded by all that it may be interstitial or parenchymatous, as circumstances may determine, we are assured that after the process has advanced to complete degeneration, no distinctive difference can be observed in the lesions of either variety. The changes which I have detailed, most frequently occur in the peripheral terminations of the nerves, but the nerve trunks may be involved at their distal extremities. As a rule, none of

these lesions are found in the spinal nerve roots. The brain, in some instances, more especially those of alcoholic origin, presents evidences of meningeal inflammation.

Degeneration of the muscles proceeds *pari passu* with the nerve changes. Following the fatty degeneration, new connective tissue takes the place of the proper muscle fibre. Starr says, "that when no regeneration takes place a mass of connective tissue replaces the muscle, containing a few muscular elements."

The process of regeneration is necessarily a slow one, and the time required for its completion is entirely dependent upon the extent of the degeneration that has occurred. Where this is slight it may be rapid, and cases are on record where complete recovery, with restoration of nerve integrity, has been observed at the end of the second month. Generally, however, it is a slow process, and most cases require from six months to two years before the functions of the diseased nerves are re-established. In the absence of positive experimental data upon which to base an opinion, it is inferred that the process of regeneration is that which follows experimental degeneration.

The occurrence of multiple neuritis under such a contrariety of circumstances has suggested to observers the advisability of a classification of cases in accordance with their apparent causation, and while such a classification is desirable, it must be confessed that, as yet, our knowledge is too inexact to justify an arbitrary division of that character, for in many cases, notwithstanding the most careful investigation, the pathogenic element eludes our search. Nevertheless, for convenience of description, I shall group cases in three classes, leaving out as of no practical importance to us, the nervous symptoms which occur in *beriberi* and leprosy, and which have been ascribed to neuritis.

1. Cases due to alcohol, lead, arsenic, etc.

2. Those cases which occur in the course of infectious diseases, and which are presumed to owe their origin to the direct action of the specific element of these diseases upon the nervous system.

3. Cases due to cold, exposure, dampness and to agencies whose influence is as yet unascertained.

1. Observers in different parts of the world have confirmed the views first advanced by Jackson in 1822, that alcohol is by far the most prolific cause of multiple neuritis. Whether or not this is due to the direct toxic action of alcohol upon the nervous system is not known. It is especially frequent among the higher classes whose nervous system are highly developed, and whose lives are inactive. An indolent life with daily indulgence in whiskey or brandy, creates a liability to this special form of nerve disorder. Women suffer more frequently than men. "Alcohol," as Starr suggests, appears to exert its toxic effect in men by the production of cerebral disturbance, while in women it expends its force in the causation of nerve degeneration. Gomers had eight cases of typical alcoholic neuritis in women, and none in men. Alcoholic paralysis, although apparently sudden in its onset, is usually preceded by a history of gastric disturbance, with a train of nervous phenomena consisting of insomnia, tremor and unsteadiness of gait. Sometimes the cases assume from the beginning the tabetic type, inducing the condition to which Déferine has given the name pseudo-tabes.

When an attack of multiple neuritis is sudden in its onset it is marked by decided febrile reaction, the temperature ranging from 103° to 104°. This may persist for several days, and has a disposition to subside spontaneously, with no tendency to return. The fever may, however, become continuous, the temperature not being so high, the pulse ranging from 90 to 100. A pulse continuously over 100, with a tendency to become irregular, indicates involvement of the pneumogastrics, and is of ominous significance. The mind is generally undisturbed, but in some cases there is active delirium, and in others the patient becomes the victim of delusions. One noticeable feature in these cases is the disposition patients exhibit to deceive their medical attendant, resorting to the silliest subterfuges, and even boldly lying, to evade the watchful supervision of those around him.

The sensory symptoms are co-incident with the beginning of the disease, and persist during its whole course. Numbness, tingling and formication usher in the attack, and the great discomfort which they induce is frequently what impels the patient to seek medical advice. Paræsthesia begins in the hands and feet, and extend to the elbows and knees. There may be burning, boring, tearing sensations, but they usually subside as the disease advances. Pain is a frequent accompaniment, and may be so severe as to require opium for its relief. It is usually moderate and not continuous. Indeed it is rarely as aggravating as the lightning pains of tabes dorsalis. Along the course of the affected nerves, and in the muscles which they supply, there is great tenderness, and this, in some cases, is so marked as to prevent the use of electricity for diagnostic purposes. Should the tenderness and pain be referred to the joints with co-existent œdema it may be difficult to differentiate it from acute articular rheumatism. There are hyperæsthesia and anæsthesia, that is to say, there may be localized spots of anæsthesia while the limbs are markedly hyperesthetic. Tactile sense is frequently lost, and the transmission of pain and temperature may be delayed. Sometimes the muscle sense is so much impaired as to induce inco-ordination and ataxia, thereby misleading the attendant as to the nature of the case. The disturbances of sensation in exceptional instances, involve the whole extremities, and even the trunk, but they are usually limited to the hands and feet. Lowenfeld has recorded a case in which facial tingling with anæsthesia occurred. The special senses are rarely affected, although in a few cases optic neuritis has occurred, and in some disturbances of hearing have been observed.

The paralysis so characteristic of the disease manifests itself in the beginning by weakness, and a feeling of fatigue on exertion. This is rapid in its progress, two or three weeks only elapsing before the patient is helpless. The onset of the motor symptoms, however, may be less sudden, and there may not be entire loss of power of walking for several months. Still in some cases at the end of only a few days, the limbs may be

completely paralyzed. The distribution of the paralysis is not uniform, for it may develop in muscles supplied by a single nerve and slowly invade those supplied by other nerves. It may invade the feet first, and then progressively advance until all four limbs are affected. It is more marked in the extensors of the hands and flexors of the feet, producing wrist-drop and foot-drop. The muscles moving the knees and elbows are rarely affected. When the disease has become complete, total paralysis of all the muscles below the knees and elbows exists. Rarely the muscles of the arms, thighs and trunk, become involved. Only in rare and fatal cases are the muscles of deglutition affected. Brazelius has published a case in which not only all the facial branches of the facial nerves were paralyzed, but also the muscles of the neck, of the trunk and extremities were paretic. All the muscles paralyzed are relaxed and flabby, and they may or may not lose their mechanical irritability. As a general rule, the tendon reflexes are absent, although in exceptional instances they have been exaggerated. Sometimes there is simple diminution of electrical excitability, and a strong current is required to produce contractions. Often all faradic excitability is lost, and the muscles react only in response to a strong galvanic current. When the degeneration is complete, there is reaction of degeneration. Still in a few cases the normal reaction is found, the negative pole producing stronger contractions than the positive. Finally, atrophy and contraction of the muscles occur, leading to grave deformities.

An œdematous condition of the affected limbs sometimes occurs. The surface becomes smooth and shiny, the skin appearing as if stretched to its full extent over the underlying structures, the natural creases and lines being obliterated.

1. M., æt. 23, a constant drinker, and though not given to sprees, has not been careful as to the quantity or quality of whiskey drank. Had been much exposed to cold and wet, but this could not have produced present illness, inasmuch as trouble did not follow early enough after exposure. In June, 1885, while returning home from a distance he noticed, for

the first time, a peculiar feeling under and about the great toe of the right foot as if it were being lifted off. The same night paræsthesia extended to the rest of the foot, and the next day sensation was similarly disturbed in the other foot. This travelled symmetrically up the lower extremities, until it reached the waist, shading off gradually from half way up the thighs. Two months after beginning of disturbance, the patient was conscious of steadily increasing loss of muscular power, and of atrophy. Until October, 1886, was able to be around. Since then he has been confined to the house, locomotion being accomplished with difficulty. During the time has suffered with muscular pain of increasing severity.

Condition when first seen March, 1887: His case has been pronounced locomotor ataxia, and such he believes it to be. Muscles of the thighs and legs atrophied and flabby. Extremities cold and clammy. Every motion of the lower extremities is accompanied with pain. Respiration rapid and abdominal. Tactile sense much impaired, and in certain circumscribed localities gone from the toes to half way up the thighs. Locality sense impaired, that is, he is not able to designate within two to four inches of where an object is placed in contact with his body. Sometimes not conscious of contact at all. Temperature sense impaired. There is no sensibility to faradic current until half way up the thighs, and then only to a strong current. Galvanic current showed R. D., in the muscles of the lower extremities, and to a slight degree in the extensors of the wrists and fingers. Pressure on the muscles of the lower extremities causes intense pain. There is a painful and annoying sensation about the scrotum "as if being torn away." Patella reflex exaggerated. Eyesight not so good as formerly, but the Argyl-Robertson pupil phenomenon is not present. Co-ordination good. Is constantly in pain and from broken rest is weak and emaciated. Locomotion is only accomplished with difficulty by grasping objects for support, or with the aid of attendants. Sexual desire gone. Diagnosis: Multiple neuritis. Recovery (Starkel, St. Louis Courier of Medicine, August, 1887.)

2. A., book-keeper, aged —, had led an inactive life and was an habitual secret drinker, imbibing large quantities of liquor. Six months prior to present illness began to suffer with depraved appetite and other evidences of digestive disturbance. These increased and there supervened symptoms of delirium tremens with aggravating pain in the left arm and leg. At the expiration of five months he was forced from his condition to give up work. He became very moody and reticent. A few days after this the left arm and leg became paralyzed. There was great tenderness over the nerves. Wrist-drop and foot-drop marked. His speech became so affected that he could not speak so that he could be understood, every effort to do so resulting in a hissing sound, due to an involvement of the nerves governing the muscles of phonation in the degenerative process. The mind was much disturbed, and while his attention could be secured he soon lapsed into a condition of apathy. There was great restlesness, with picking at the bedclothes. He would sleep quietly for a few minutes, and this would be interrupted by delusions. The bowels were constipated. The bladder at first acted normally, but it became necessary toward the termination of the case to use the catheter. Deglutition was very difficult. The vital functions became more and more depressed and the pulse became imperceptible at the wrist. The temperature, which at first was 101°, now became sub-normal. The surface became cold and clammy, and death occurred from involvement of the vagus, (Drs. Ketchum and Toxey, report to the Mobile Medical Society).*

Cases of paralysis from poisoning by arsenic and lead have been so frequently reported, and are so fully described in the text books that I deem it unnecessary to lengthen this paper with their consideration, except to emphasize the importance of recognizing the influence of these agents in the causation of peripheral neuritis.

2. There are a number of infectious diseases which are occasionally followed by nerve disturbances eventuating in

*These two cases are reported as typical cases of multiple neuritis. I have notes of seven cases occurring in my own practice, but they are not complete, hence do not utilize them.

paralysis, as: Diptheria, scarlet fever, typhoid fever, tuberculosis, &c. The invasion of the nervous system by the morbific agent which caused the original disease usually manifests itself during the period of convalescence. Apprehending the true nature of the trouble, we will be able, from the distribution of the paralysis to estimate with something like certainty its gravity and foresee its termination.

Diptheritic paralysis is familiar to every practitioner of experience, and no doubt some of us have seen paralysis, with atrophy, following the other diseases mentioned.

Paralysis due to malaria is by no means infrequent, and I have had several cases of this character in my own practice, and Holt, Westphal and Albutt have reported similar cases, therefore, I need not consume time in its description.

The influence of tuberculosis has been variously estimated, and while I know of no positively reliable observations confirming the suspicion that it is sometimes the principal causative factor in multiple neuritis, there is at least a marked coincidence, for in the cases reported by Joffroy, Eisenlohr, Strümpell, Webber and Müller, phthisis pre-existed.

The influence of syphilis is not positively known, but the consensus of opinion among neurologists is that it is never the cause of multiple neuritis. Syphilitic neoplasms may invade the tract of a nerve and by pressure create a localized neuritis, but no cases have, as yet, been reported which would justify us in assuming that a widespread inflammation of the peripheral nerves is ever one of its manifestations.

3. In some cases after the most searching investigation no cause has been ascertained, but they occurred under such circumstances as to justify the assumption that they were due to cold, dampness, exposure, fatigue and bad hygienic surroundings. How these act as causative factors in impressing the nervous system so profoundly, we do not know, and can only hope that future researches will remove the obscurity which now surrounds them.

1. A young girl seventeen years of age, who had previously enjoyed good health, but who had been exposed to considerable

fatigue from watching, hard work and constant walking, was taken in May, 1886, with chills, sweats and headache. On the 25th of the same month there ensued numbness, anæsthesia, and paresis in both legs, and also in the three fingers at the ulnar side of both hands. May 31, there was paresis of the left facial nerve. During the following week the paresis increased in extent and intensity so that not only all the facial branches of the facial nerve were found paralyzed, but also all the muscles of the neck, of the trunk, and of the extremities were markedly paretic. The bladder and rectum were normal. There were no contractures, no spasms. On the 14th day of the disease the temperature was 104° F. On the 18th day there was an amelioration, anæsthesia diminished, but was replaced by hyperesthesia. On June 27th there was complete paralysis of all the branches of the facial nerve, and considerable paresis of those of the neck, trunk and extremites. There were anæsthesia of the skin of the face, and of the lower extremities, pain on pressure of the nerve-trunks, and in the muscles of the face and extremities, and slight atrophy of the muscles of the hands. All the reflexes were abolished. R. D. was total in the face, and partial in the extremities. There was no fever. Intelligence was good. After a few days the anæsthesia subsided. July 8th, the facial paralysis was decidedly better. July 13th, the abdominal reflexes, and July 27th, the plantar reflexes returned. On July 23d she could take a few steps. September 23d, the patella reflex returned. September 29th, recovery complete, the patient walking without difficulty.—(Brazelius, Nordiskt Medicinkst Arkiv, 1887).

2. H. G., æt. 16 years, of good physique, and up to present illness enjoyed good health. Family history negative. While returning from his daily labor, that of a saw-mill hand, was caught in a shower of rain, wetting his clothes. On reaching home he failed to change his clothes but went to bed, and slept soundly all night. Upon rising next morning he detected a feeling of numbness and tingling in both feet. This progressively advanced to the knees. At the same time he suffered from intense pain in the limbs. On the third day his

hands, wrists and arms became similarly affected. I saw him on the sixth day, and his condition was as follows: He stands with great difficulty. The muscles of the legs are in a condition of tremor. When he attempts to walk he staggers, not however, from cerebral disturbance, the inco-ordination being due to paresis of the muscles of the legs. There is hyperesthesia from the feet to the knees, although there are circumsribed points of anæsthesia in the same surface area. The grasp is feeble. The reflexes are absent. Romberg's symptom is not present. On the seventh day the paralysis was complete from the toes to the knees, and from the fingers to the elbows; and there was great weakness in the muscles of the thighs and arms. Wrist-drop and foot-drop marked. There was no response to the faradic current. The galvanic current showed R. D., complete in the feet, legs, hands and forearms. On the eighteenth day the paralysis being complete in the extremeties, the inflammation invaded the trunk and the muscles of respiration became involved, and death ensued on the nineteenth day of the disease.

In arriving at a diagnosis in multiple neuritis, it is necessary to exclude those forms of paralysis due to lesions of the cord, namely: acute anterior palio-myelitis, tabes dorsalis, and diffuse myelitis.

From palio-myelitis anterior it may be differentiated by the onset b.ing more gradual, accompanied by pain and numbness, tenderness in the muscles, and the persistency of the sensory symptoms. Should the symptoms not be clearly defined and the paralysis is situated in muscles supplied by a single nerve, the case is evidently one of multiple neuritis. The paralysis in multiple neuritis gradually advances, while in palio-myelitis it, often after the onset, subsides in the muscles first affected.

Ataxia, loss of knee-jerk, pain and sensory disturbances, including loss of muscular sense, Romberg's symptom and optic neuritis are common to tabes dorsalis and multiple neuritis. In the latter the relatively rapid onset of the ataxia, the prominence of numbness and anæsthesia, instead of lightening pains, the extreme degree of anæsthesia, tenderness of

the muscles and nerves, the occurrence of paresis with atrophy, the R. D., and the abscence of bladder and sexual symptoms, will indicate the nature of the case. Ataxia occurs in neuritis only in cases due to poisoning by alcohol or arsenic, or after an attack of diptheria. Return of the knee jerk and the course of the case to recovery favor neuritis.

Diffuse myelitis is an extremely rare disease, and Leyden has affirmed that such cases are neuritis. In multiple neuritis the functions of micturition and defecation are never affected. Girdle sensations are rare, and bed-sores with cystitis have never been observed. It is rare for the paralysis in neuritis to advance from the legs to the thighs and trunk, and then to the arms, as it does in myelitis.

The prognosis is dependent upon the amount of nerve tissue involved, as indicated by the distribution of the paralysis, and is, in most cases, favorable. There are three indications to be met by treatment, namely:

1. The removal of all agencies which have been influential in precipitating the attack, or of those which, if not removed, are likely to intensify it.

2. The relief of the sensory trouble, more especially the pain.

3. To improve the tone of the nervous system in order to secure a return of its functional integrity.

(1) Alcohol in its various forms should not only be prohibited, but a strict surveillance should be exercised over the patient to prevent his obtaining it. This is important and is specially emphasized because we can not, in this disease, trust to the honesty of patients or their servants. As I have endeavored to show when speaking of the symptomatology of alcoholic neuritis, those affected are unreliable, resorting to every expedient, even lying to deceive the attendant. But while the patient may not be able in person to obtain alcohol, by promises or threats, he can frequently induce servants to violate the expressed orders of the attendant. Therefore, every safeguard should be thrown around the patient, because, upon the total abolition of his bibulous habits depends, to a

great extent, his recovery. This should, consequently, be impressed in no uncertain manner upon the minds of relatives and friends. Cases due to other causes should be placed in the most favorable surroundings to secure an absence of everything calculated to produce or aggravate the disease.

(2) For the relief of the pain I can speak with confidence of the salicylates and the bromides. These are to be given in large doses. The salicylate of sodium in fifteen grain doses, repeated every two or three hours, will be required to allay the pain, while the bromides appear to subdue the nerve perturbation so frequently seen in these cases. Opium is seldom required, but occasionally the pain is so severe as to require morphia hypodermically, and it would be the refinement of cruelty, amid so much agony, to refuse the relief which this drug furnishes. In cases where malaria is a causative factor quinia in full doses is indicated.

(3) To bring about a restoration of nerve function and to repair the damage to the nervous system, perfect, absolute rest is necessary. The surroundings of the patient should be made cheerful and pleasant in order to encourage that condition of mental equipoise and comfort so essential for nerve nutrition. Tonics, as strychnia, arsenic, iron and coca are indicated. The administration of arsenic has in the hands of most observers yielded excellent results, and should be used continuously for a long time. Strychnia being a pure nerve tonic may also be given with benefit. Among those who have had the largest experience in the treatment of this disease, iodide of potassium and the preparations of mercury have seemed to be without curative effect, and, in some cases, even exercising a pernicious influence.

In order to restore the nervous system to its originally healthy condition there are two agents, which, if judiciously used, promise much. I refer to massage and electricity. The extremely tender condition of the muscles and the hyperesthesia of the skin may, for a time, make the use of massage an impossibility, but as this undergoes amelioration gentle frictions should be begun and continuously used, and as the nor-

mal condition of sensation is secured kneading should be persistently employed. Where the hyperesthesia and tenderness are severe the use of cooling lotions, or hot water applied on cloths sometimes affords relief.

Electricity, so valuable in many morbid conditions, marked by paralysis, should be used with judgment, since it is a two-edged remedy, either proving of great benefit or lasting injury. In multiple neuritis it subserves two purposes, namely: To aid in nerve regeneration, and to re-establish the normal conductivity of the nerve. The first object is best attained by the use of a mild galvanic current. The current should be mild, ten minutes being sufficient for each application. This should be used daily, its maximum intensity being attained slowly, without interruptions. To accomplish the second object the faradic current of moderate intensity will give the best results. To exercise the muscles and to prevent the atrophy consequent upon non-use, most writers recommend the interrupted galvanic current.

With the methods of treatment detailed the management of multiple neuritis promises to be eminently successful, and day after day the benefit derived will be more and more perceptible, until at last nerve regeneration is secured, muscle tone improved, and the health of the patient perfectly restored.

TREATMENT OF ORGANIC STRICTURE OF THE URETHRA.

BY EDWARD WATTS MORRIS, M. D., OF BIRMINGHAM,

Member of the Medical Association of the State of Alabama.

The methods of treating organic stricture of the urethra at the present day are three in number, namely: Dilatation, simple and rapid. Cutting, internal and external urethrotomy and electrolysis.

I regret that I can not relate any personal experience with the last, electrolysis, and I am puzzled to understand why a method claiming such brilliant results should not have received a more universal trial. For the past few years Dr. Robert Newman, of New York, with one or two followers, among whom is Dr. Belfield of Chicago, has been challenging the world, with the report of hundreds of successful cases, laying claim to the superiority of this method above all others, particularly in strictures situated in the membraneous portion of the urethra.

I might mention among those who have used electrolysis successfully, Dr. Hogan, of this state. In a paper read before the Southern Surgical and Gynecological Society in 1888, he reports some five cases; he was not prepared to say, however, that he considered his results permanent. Among those who condemn electrolysis I will only mention Dr. Keyes; he tried it in six cases with the most signal failure.

SIMPLE DILATATION.

With simple dilatation alone I have been able to cure what is known as the "incipient stricture," which is a slight narrowing of the urethra, due to thickening of the epithelial layer.

The symptoms of this condition of the urethra are gleet or chronic gonorrhœa, and it is a condition that if left untreated always goes on to the development of cicatricial tissue. It is not easily detected with the sound on account of the slight encroachment made upon the urethral canal, and because the elasticity of the walls has not yet become impaired. But it can be very easily seen with the endoscope or located with the urethra meter. I have been able to permanently remove this narrowing and the symptoms consequent, by the continual use of the sound, assisted by an occasional application of a five per cent. solution of nitrate of silver. The sound must be increased to the full size of the urethra, as revealed by the circumference of the penis, or sufficient pressure will not be brought upon these spots to produce their absorption, and to accomplish this the meatus has usually to be enlarged. For more than this, simple dilatation has been in my hands valueless as a means of cure. Where stricture has become organized, I have never been able to get any but the most temporary benefit, and not infrequently after the canal has been dilated up to its normal calibre, and the sound is passed regularly, there will persist some symptoms, and it will be very evident that the stricture has become "elastic" and re-contracts almost as soon as the sound is withdrawn.

RAPID DILATATION.

Rapid dilatation has been almost entirely abandoned in this country as a means of cure, and is used only to gain time when the stricture is very small and resilient. The same may be said of continuous dilatation.

INTERNAL URETHROTOMY.

To Dr. F. W. Otis, of New York, we are indebted for the invention and perfection of the dilating urethrotomy, and to establishing the individuality of the urethra.

In the last three years I have treated twenty-six cases of stricture by dilating urethrotomy. In only one case was there stricture below the bulbo-membranous junction, and in this both internal and external urethrotomy was done. In twenty-

five cases there was a history of gonorrhoea, in one, excessive masturbation. There were from one to five strictures in each case. Two were within one inch of the meatus and were divided on the floor of the urethra with a blunt pointed bistoury. In the others Otis's dilating urethrotomy was used, the incision being made upon the roof of the urethra and as near as possible in the median line. Let me advise you to use only the straight instrument, for the curved is not only of no use in operating anterior to the bulbo-membranous junctions—and internal urethrotomy ought never to be done behind this point—but it has the disadvantage of dilating the urethra irregularly and you may cut either too deep or not deep enough.

Cocaine anæsthesia was used in all save the case where perineal section was done, when chloroform was given. The urethra was douched 1-200 permanganate solution, both before and after the operation. The catheter was only used in one case, nor do I think it necessary unless the cut has been very deep, involving the corpora cavernosa to use the catheter. The after treatment consisted in the passage of a full-size steel sound. In my first cases I waited until the third or fourth day before beginning the sound, but I have found it much better to begin the day after and to pass it every day until the fifth day; it is then passed on the seventh, fourteenth and twenty-first. By beginning twenty-four hours after the operation, I have avoided producing the hemorrhage which so often follows after delaying until the cut has coaptated. It is also much less painful. Never pass the sound into the deep urethra during the first week. In three of my cases there was chill and fever, due to this cause. These were among my first cases, latterly I have never gone past the bulb and have had no more. During the first week antiseptics before and after passage of the sound. There was slight ecchymosis over the point of incision in two cases. In one case a curvature of the penis during erection, which lasted for five months.

EXTERNAL URETHROTOMY.

In regard to strictures of the deep urethra, I have nothing to say except to condemn internal urethrotomy for the relief of

them, and also to state that I have not found them nearly so frequent as laid down by the books. My observation has been that stricture is much less frequent in the negro than in the white man, and it is certainly not due to the fact that they are more exempt from gonorrhoea.

PHYSICAL RESEARCH AND PRACTICAL MEDICINE.

BY JOHN EDWARD PURDON, M. D., OF CULLMAN,

Member of the Medical Association of the State of Alabama.

We are called upon as practical physicians to pronounce judgment upon the value and use of certain curative agencies which are supposed, by the ignorant and the uninitiated, to deal more or less with the occult and supernatural, and to adopt or reject the same in accordance with the evidence available for submission to the cool and dispassionate judgment of workers as contrasted with that of mere theorists. Under the above heading may be included all immaterial hygienic influences. We must be cautious not to let prejudice or passion interfere with the pursuit and practice of truth, for the physician is bound to consider the well-being of those in his care, even if he has to adopt means of conservation and cure diametrically opposite to those inculcated in his early teachings. If mesmerism, hypnotism and even cure by the laying on of hands, not to mention "faith cure," or that founded on purely subjective influence, are found to be of real benefit, it is, I think, the duty of the doctor to investigate their nature and to apply any of these modes in the individual case. This is very far from a general proclamation of the usefulness of any of these hitherto unorthodox methods of treatment. We know too little of their value as therapeutic agents to generalize as to their constant efficacy, but, on the other hand, our ignorance should be a check to our dogmatic assertion of their uselessness. This is particularly applicable to hypnotism, which, until recently, has been rejected by science as unworthy of consideration, although its facts have been familiar from the earli-

est ages. The name of Mesmer is attached to a method of influencing the human nervous system and animal, in general, I may add, which is as old as the history of mankind. Hypnotism was practiced by the Egyptian priests upon their initiates, and it is not to be wondered at that a sharp practitioner like Mesmer, who was unquestionably constituted to exert a strong impression upon his patients and followers, was able to stamp upon it the trade mark of his own name. As the alchemists were the true predecessors of the modern chemists, so Mesmer was of the modern school of hypnosis. Mesmer pretended that by the aid of certain operations and passes, he was able to communicate a certain vital fluid, designated "animal magnetism," which was supposed to account for certain curative effects in impressionable subjects. That some of his operations were effective is a matter of history and of fact, but that his reputation was sullied by charlatanism can not be denied.

Early in the forties, Dr. John Eliotson, a noted London physician and physiologist, in spite of the unfavorable report of the French Academy as to the practical value of Mesmer's procedures, turned with enthusiasm from the beaten tracks of science, of which he was such a leading light, to prosecute what is now known by the more fashionable and less empiric names of hypnotic and psychic research. From the pages of the Toist, a journal conducted by him for some years, we find that he was far ahead of his time and employed Mesmer's method to the benefit of his patients and his own professional detriment.

But soon Dr. Braid of Manchester, endeavored to overthrow the theory of animal magnetism by proving that the state characteristic of the mesmeric condition could be easily produced, in most persons, by concentrating the eye and attention of the subject upon a bright object, without any interference upon the part of the operator. This, however, was not absolutely new on the part of Braid, for he was simply imitating the practice of Abbe Faria, and following the theories of Alex. Bertrand. Braid attempted to account for the effects formerly put down to animal magnetism, by tracing them to the cerebral fatigue caused by the fixed attention of eye and mind.

After awhile, however, Braid was compelled to acknowledge that he could not, by his method, produce all the higher phenomena of hypnotism called forth by the mesmeric passes. This was well shown by his greatest follower, Dr. Liebault of Nancy, one of the highest authorities, and with the largest experience in hypnotic medication, who treated successfully children under three years of age, where concentration and fixed attention could not be supposed to operate. Following these two methods, and destined for a while to entirely eclipse them, came that of suggestion. The honor of using this, now generally accepted method, is said to be due to a man almost unknown in the history of hypnotism, and whose name cannot be found among those of the stars in this department of science. To an American is due the experiments which, under the name of electro-biology, gave such an impulse to the study of these obscure mental phenomena. His name was Grimes, almost all we know about him. He is said to have first applied suggestion for curative purposes and the production of anæsthesia as early as 1853.

Thus we find that, in the history and natural development of hypnotism, three well marked stages, which so far from being contradictory or mutually exclusive, supplement each other in a completed whole.

What definition shall we offer of hypnotism? The widest possible is the safest in face of the opposite views as to its causation. We shall say that it represents an altered state of the psychic organism, brought about by artificial means, and that modifications of functions so induced may range from those manifested in consciousness, down to those expressive changes in the ultimate units of the body. Here I use the term psychic organism to stand for the subjective side of the nervous system viewed as a whole, in which, of course, the change primarily takes place.

Without going into particulars, we may say that three principal stages characterize the hypnotic transformation, viz: somnambulism, catalepsy and lethargy. These definite states may be mingled in various proportions, but for the experimental

study of hypnotism it is necessary to operate in clearly distinguished states, otherwise the investigator is apt to meet with complications and to expose himself to unforeseen errors.

The two great schools of Paris and Nancy, under the respective leadership of Drs. Charcot and Bernheim, take fundamentally opposite views of the nature of hypnotism. In a word, Charcot regards it as pathological, while Bernheim looks upon it as physiological. While the first advocates the restriction of its use to hysterical subjects, the other regards it as of universal applicability, and especially by the method of suggestion, to the treatment of many diseases. Charcot regards the hypnotic sleep itself as the curative agency, while Bernheim, the principal advocate of the suggestive method, regards the hypnotic condition as the field for the exercise of suggestion, that state itself, in the first instance, having been provoked by suggestion.

Now, with regard to the therapeutic use of hypnotism which at present concerns us chiefly as physicians, it may be stated as the safe and certain rule, that we should never establish the hypnotic condition with its necessary predisposition to recurrence, except in those persons who are readily accessible, and in whom it can be reasonably expected to be of benefit. All physicians should dread the establishment of artificial neuroses through hypnotization. I shall furnish a list of some of the diseases where this method has been successfully employed by men of undoubted repute. I can do no better, as the field is too vast to more than mention headings. I intend to finish by giving some of my own cases, treated several years ago, before the subject was as well understood as it is now.

Dr. Dumontpellier, of the Hotel Dieu, Paris, reported to the Biological Society a case of painless parturition in February, 1887. Dr. Pritzel reported in the Vienna Medical Wochenblatt, a case of accouchment in a primipara during the insensibility of the hypnotic state. Dr. Voisin, the celebrated alienist of the Salpetriere, Paris, reports so many successful treatments of nervous and mental diseases, we need no longer hesitate to recommend it in such cases. He treated an

hystero-epileptic with convulsive attacks, hallucinations of sight and hearing, furious delirium and maniacal agitations, in conjunction with bromides which the patient had otherwise refused. After four months the case resulted in a perfect cure by simply letting the patient lie for long periods at a time, often as long as twenty hours. Other cases of hystero-epilepsy with amorous delirium, were successfully treated by the same method.

One case of seven years duration was completely cured in three sittings. Cures are reported of hysterical amaurosis, amenorrhœa, megrims, the morphine habit, diarrhœa retention, onanism and other bad habits in children as well as painless operations in surgery and dentistry.

I should not forget to mention that hypnotism was used in capital operations in India by Dr. Esdaile, an Englishman of the Eliotson school of mesmerism, many years ago in the Calcutta hospital and with marked success.

I may do well to remind those extra orthodox physicians who, on account of the novelty of the hypnotic method, object to its use, that perhaps most of their best cures have had the factor of suggestion unconsciously introduced. I would not like to say, or to give offense by saying, how far the practice of homeopathy is indebted to the influence of suggestion. This is true in all departments of medicine. I might even go so far as to say that the evil effects of wrong treatment must often have been counterbalanced by the patient's confidence in his physician and his expectation of a successful result. We need not wonder at the success of charlatans who know how to play upon human nature in cases where the more cultivated physician has failed.

It has been proved incontestably, that suggestions may be implanted in the mind of the subject to take effect after even a year's time. This at once shows the danger that may result from the improper use of hypnotism. Post-hypnotic, as these suggestions are called, open the door to the commission of an indefinite amount of secret crime, where the real criminal escapes punishment by guarding himself, and again through the

aid of suggestion, against counter accusation on the part of his tool.

If a suggestion has been implanted in the mind of a subject, care should be taken before awakening him, to guard him against the danger of a fixed idea by a counter suggestion.

I shall now venture to offer some cases taken from my own practice to illustrate the value of curative mesmerism. These cases tend to show that I was pretty well acquainted with the true use of this powerful method, long before its revival among the French and German scientists during the last few years.

Nineteen years ago I seriously turned my attention to the subject of mesmerism with the view of bringing its apparent vagaries within the limits of law. The first case upon which I tried an experiment, was one which from the beginning, gave me a datum sufficiently comprehensive to overthrow a great deal of the foregone conclusions which I had accepted with thousands of the medical profession, namely, that in the case of subjects easily affected by the mesmeric influence, we were only dealing with pure hysterical catalepsy.

An unmarried lady over thirty years of age, on a visit to my family, had often expressed a wish to be mesmerized, and I, to please her, had promised to do so, putting the operation off from time to time, however, as I knew little or nothing at all about it or its effect. One afternoon when she was asleep on the sofa, while I was sitting at the opposite side of the room, the notion came into my head to try the effect of passes and an effort of will in inducing the hypnotic state. In a very short time I saw her mouth twitch in a manner which I afterwards found to be characteristic whenever she was thrown into the same condition as that which speedily resulted from the operation. Believing that the mesmeric influence had been exerted upon her, I beckoned my wife through the window to come in an attempt to rouse her. This she entirely failed to do although she called her loudly and shook her also, if I remember rightly. I awoke the young woman by making transverse passes on the forehead and told her that she had

been mesmerized while in her sleep, a fact which she would by no means accept, although we were intimate friends. To convince her I at once caused her to fall into the trance condition again, and lifting up the loose sleeve of her gown passed a needle through a fold of the skin at the back of the wrist, drawing down the sleeve again so as to hide the needle. When I awoke her as before, she showed the same incredulity and would not believe that she had been asleep or unconscious for any length of time. I then drew up the sleeve and showed her the needle, when she surrendered at discretion and to her own advantage.

This lady belonged to a family of nervous temperament where gout and functional nervous disturbances were prominent features of the medical history, the father having suffered from apoplexy due to gouty arteries, while the mother, then eighty, and who lived to ninety years of age, although healthy, had always shown herself to possess a delicate nervous organization.

After I had tried the above experiment, I asked my patient to hold out her hand, which trembled so much in the exercise of her daily avocations that she could hardly write a letter or hand a cup of tea or an egg without throwing it off the saucer or jerking it out of the egg cup. A few passes along her arm—assuring her at the same time that she was about to be relieved of the distressing symptom, which I have described and which had been present for years—were followed by almost complete relief, and she, to the astonishment of the rest of the family circle, handed me my tea that evening with almost as little shake in her hand as there was in my own.

Dominance having been obtained over this lady, she was very quickly relieved of wakefulness, which was a source of great exhaustion, her sleep being often nil or limited to a very short space of time. After a few trials she would, on being settled in bed for the night, be asleep before I counted the thirty seconds which I had fixed as the limit within which she should fall asleep. After this treatment her health greatly improved and during the following summer, when she stayed

with us on a visit for a while in the south of England, she became a strong, healthy woman.

This case points to something more than ordinary hypnotism. I had the lady's own assurance that she was quite unconscious of any operation on my part. I knew, however, that the argument of sub-conscious attention and the perception of motion through the half-closed eyelids of the sleeper may be advanced to bring the case within the limits of ordinary hysterical hypnotism. I myself hold the view that the above was an example of the direct influence of one nervous system upon another, across the intervening space, through the agency of some unknown physiological machinery.

Another case is specially worthy of attention. A corporal had been under my care in the fall of 1873 at the Sandown Military Hospital for some months, suffering from a general break down, which was placed to the credit of a constitutional complaint from which he suffered years before. Finding the medicines I employed, and notably the iodide of potassium upon which I relied, valueless, and seeing the patient getting worse daily, one side becoming paralyzed, I thought it my duty to try the effect of mesmerism. The man proved himself to be the most susceptible upon whom I had experimented, for, on looking into his eyes while holding his hands, he fell back in sleep from which he was soon awakened by the noise of a falling form. Trying him a second time, he fell into a much deeper sleep, in which I left him and from which he did not awaken for several hours. From that time the man got better, and after my removal from that station I had the pleasure of seeing the poor fellow who had previously been hardly able to use his limbs, and who had walked over to Parkhurst Hospital, a distance of nine miles, for the purpose of being re-engaged for a further time of service, to which, however, I could not agree on account of his previous serious illness. In talking over his case to me he made the simple remark: "You may say what you like was the cause of my cure, but I began to get well from that day." I had tried the hypnotic treatment in his case only on the single occasion referred to.

I mentioned the fact of my employing the above treatment when the occasion suggested it to the general officer commanding the district, on the day of his making his yearly inspection. As he was a sensible man he considered I was just right to exercise my judgment as seemed best for the benefit of those entrusted to my care. In the above case, I at first thought that the paralysis was due to an organic change in the gray matter of the nervous system. I do not think so now. I believe the disturbance of function was one relating to nutrition, and that the local seat of derangement was in the spinal cord. I have no experience of the cure of serious organic disease by means of hypnotism or mesmerism, but I am strongly convinced that where a regulative process of a conservative character, can be induced by the agency of the hypnotic or mesmeric state, it is possible to avert the development of organic disease. Indeed, some of the latest developments of hypnotic power, dealing as they do with visible and tangible physiological changes, may be supposed to be capable of effecting the most extraordinary changes in living tissues. In the case quoted, I believe in the reality of the regulative agency, because it is the simplest physiological way out of an otherwise tremendous difficulty, i. e., that of accounting for the frequent relief afforded to functional derangements by hypnotism or mesmerism when recognized plans of treatment fail. It is no explanation to get out of the difficulty by saying that no actual disease is present in these cases. Such an expression is as meaningless as it is misleading, for functional disturbances are too often the precursors of organic disease.

A case calling for record is that of a man sent to the same hospital on account of epilepsy. I first saw him lying on his bed with half a dozen men holding him. I told them to let him go and to keep himself quiet, which he accordingly did. I made a careful examination of this man, and I found that his nervous complaint was intimately related to an intermittent and irritable heart. He did not suffer from any organic disease, but the accommodation of the heart for ordinary low tension work was imperfect. Whenever the patient de-

creased his rate of doing work the heart behaved in a disorderly manner, although, when taxed above the ordinary rate the heart responded bravely to the call made upon it. The heart, as a machine, was not diseased, but the central innervation was imperfect. This man was easily thrown into the hypnotic state, when he would write like an amateur, repeating the same word over with his pencil a hundred times if not stopped. With the view of relief I commenced to teach him the nature of his own weakness.

When, after walking him up and down the room for some time with a weight in his hand, the heart working all right, I quietly cut the string which held the weight. I explained to him the nature of the change he experienced, the sensation of fluttering or trembling heart, etc., and when after making him behave like a machine by arresting any motion in actual progress at word of command, I explained to him the nature of the dominant idea, expectant attention, etc., and his tacit acknowledgment of the influence I possessed over him, it was very satisfactory to find that I quite lost the control which was before a matter of certainty when I openly expressed a wish to exercise it, for he would go on moving the arm, which before stopped instantly at my order, and he would easily step across the chalk line which was before a fixed barrier to his advance. It was, however, a matter of congratulation that I never lost the power of preventing a fit during the two months he resided at Sandown Hospital.

The history of this case shows that the influence brought to bear upon him was that of induced control on forced attention to his own wants, for no sooner was he outside the range of the hospital discipline than he relapsed, being attacked by one of those quasi-epileptic seizures the very day after his removal. I think my method of instruction as to the nature and value of the control obtained was of use in the treatment of the case. I have used it with benefit in other cases also.

A case I shall offer as apparently requiring the intervention of some purely physical machinery between the operator and

the patient, is that of a soldier suffering from fever. The history of the case showed that he was, at the time I first saw him, in the hot stage of ague. I ordered him to sit down in my private room at the hospital and I at once commenced to make downward passes, beginning at the head and ending below the epigastrium. The patient got rapidly worse and nearly fell off the chair from weakness; he asked for a drink of water as he said he felt ready to faint. It was plain to me that I had no right to continue the proceeding, but it occurred to me to make upward in place of downward passes, with the view of undoing what I had already done. The result was to me simply marvellous. The man got speedily better under my very eyes, and in a short time expressed himself as feeling much relieved, in fact quite well. I admitted him to the hospital and every time he felt the inclination to a return of the fever, I afforded him relief by the upward or reverse passes. He was discharged from the hospital without having been given a single grain of quinine, although an unmistakable case of malarial fever.

This case affords an instance of what mesmerists used to call "reverse polarity," and which, by a strange coincidence, had come to my notice as a matter of fact only half an hour before the soldier applied to me for relief. Such cases were said to be very rare. It would be ridiculous to suppose that any such subjective influence as expectant attention would have affected an ignorant young man with a temperature of 103° or 104° F., first for evil, and then for good, under the circumstances described. It seems to be necessary to allow the instrument or agent brought to bear upon his vaso-motor nervous system, to have had opposite effects with regard to certain designed motions in space made by me. This is the most general statement of the existence of polar properties in the physical instrument. It appears that here we are dealing with a genuine case of animal magnetism, a term I avoid as being too often used in an improper sense.

Those who are best able to judge of the nature of the questions which have agitated the minds of speculative thinkers in

this country and on the continent of Europe during the last two decades, see that it is no longer a case of victory for materialism or for spiritualism exclusively, but one of enlargement of vital functions that is at the bottom of the mysterious contradictions to the laws of our ordinary experience that surround us on all sides in both the domain of physics and of psychics when an abnormal vital factor is introduced. It will be noted that I do not say contradictions to the laws of nature, such an expression involves an absurdity, but contradictions to a limited experience. This distinction is the key to the whole mystery, for it recognizes the part played by the observer in all phenomena. What law of nature can be said to be violated when my mind acts upon that of another at a distance from me? It simply adds a new fact to the limited experience of those who have never troubled themselves about these matters. The new fact and the new law of nature which it formulates, take care of themselves—the prejudice and ignorance of those who won't investigate furnish the negative argument for the so-called "inviolability of the order of nature."

Intimately related to the one substance theory of the universe, is that of the doctrine of the Larger Life which absorbs so much of the difficulties and anomalies necessarily accompanying our working hypotheses. Man, with the discovery of his true position is recognizing the existence of potentialities related to his past and future development. If it can be argued with some show of reason, that the practice of hypnotism tends to cause the mind of the passive subject to revert to an ancestral type of slavish dependence upon that of a more dominant nature, surely, on the other hand, some of the well authenticated witnesses of supernormal intellectual power, suggests the possibility of mental development into regions of thought that we can but faintly picture to ourselves. And we may fairly say that, if man has developed from an archetypal potentiality through very low, though progressively less degraded stages of the actual, then the theory of evolution, illuminated by the reflected light of newly discovered, and hitherto quite unexplained vital phenomna, can only find its

full explanation in the complete actualization of the archetypal potentiality returning into itself through the completion of the cosmic circle.

One of the greatest of living mathematicians, Prof. J. J. Sylvester, has used the simile of the identity of the two points at the opposite ends of an infinite line, to illustrate the passage of the lowest matter into the highest form, and *vice versa*, during its progressive change along the stream of time. In the light the ordinary man views himself as through a glass darkly, and the lower senses are correlative with the cruder matter which it is their function to reveal. But even during his earthly life, he can become so far changed as to furnish both the data and the instrument of his own investigation The individual may not be able to learn much of himself, but he may be investigated when so changed, as any other object of physical science. Ought it not to be the duty as well as the privilege of the physiologist, whose motto is *homo sum; humani nihil a me alienum puto*, to carry his boast into the regions of the extraordinary as well as into those of the stable and common place?

In the face of such well authenticated facts as those mentioned above, and which could be multiplied by the hundreds if they were required, from the experience of both the modern hypnotic school and the older mesmeric practitioners, is it not the duty of the medical profession to take up these subjects and thoroughly search out their nature and *modus vivendi?* They have set us a good example in France, and the English society for psychical research has done, and is doing, right good work, in which it is aided by its newly established American branch. But it will not do for the medical profession to leave these matters in the hands of professional psychical researchers. It must be up and doing to ascertain for itself the practical value of these researches, both as to the remedial measures they may suggest, and the light they will cast into the dark recesses of human nature.

The ethical and moral aspects of psychical research, which has with truth been termed mental vivisection, cannot be

lightly dismissed. In the use of hypnotism, a tremendous responsibility is incurred on the part of the operator from the danger to which his patient may become exposed in the hands of the unworthy. It is because the effects of hypnotism are more or less permanent that its use differs from that of any other medicament. We know that the too free exhibition of alcohol is reprobated when there may be a suspected taint of alcoholic neurosis. The former establishment of an evil habit may bring upon it the moral and physical wreck of one who is already suffering from a lesser evil. I think, therefore, that the practice of hypnotism should be restricted by law to the hands of specially skilled psychologists who have given the state ample proof of their knowledge and ability to handle so powerful and dangerous an engine.

TUBERCULOSIS.

BY JOHN POPE STEWART, M. D., OF ATTALLA,
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There has been much said and written upon this subject by great and learned men for twenty centuries. The volumes written of this disease dating from four hundred years before Christ down to the present day, would more than fill this room. The subject has been discussed in all its aspects and it would seem exhausted to a degree that nothing could here be mentioned in the presence of you gentlemen that would be of the most trifling interest; therefore I shall of course not claim any originality, and my only excuse is that at the last meeting of this body the question arose as to why consumption was more prevalent among the negroes now than in ante-bellum days. This question I shall attempt to answer, and while making this attempt, if you will excuse me, I shall expatiate upon the disease itself.

Consumption is a dreadful disease. Thousands and thousands of families can tell you how their loved ones were swept away, and shudder at its very name; it means suffering, misery and death, and hangs over the moving mass of humanity like a pall and clings on with insatiable tenacity, sapping the life blood of one-seventh of those who die, and leaves the widows and orphans of those that are gone in living dread of this relentless foe. It has no respect for persons, nor choice in its selections, but feeds on those who stand the nearest by, and while it withdraws the life blood of a loved one of a family, it poisons with unerring certainty the other members thereof, and though we lift our puny arms to fly it away it bids defiance to medical science, therapy and hygiene, and kills its mil-

lions yearly, and when I say millions I speak advisedly. In 1887 out of all the world, three millions died of consumption, and in the United States alone, out of seven hundred and sixty thousand deaths, ninety-two thousand succumbed to this dreadful scourge, over one-eighth of the deaths for all ages, and fully one-third of those of the reproductive age—this is a fearful footing. War, whiskey, yellow fever, cholera and influenza pale before it into absolute insignificance; and is there no remedy? is there no help? "is there no balm in Gilead? are there no physicians there?"

For over twenty-two hundred years the brightest minds of the medical profession have labored to get at the cause, the pathogeny, or the germ of this disease, with the unmistakable idea that if you know the cause and remove it, you cure the disease. And, although at the present day we claim that we have, without successful contradiction, (through our famous Koch,) got at the very root of this evil, the benefit to the human family has had no appreciable effect, our methods of treatment are no improvement on that of Hippocrates four hundred years before Christ, and although the world's population has increased a million fold, and medical science can number its members a thousand to one, the bacillus of tuberculosis has kept pace with all, and kills its pro rata of the human family now with the same unerring exactitude.

Consumption is an old disease, dating back to the earliest days of which we have any record. The etiology of the disease at that primeval period, of course, was unknown, it being observed only from a clinical standpoint. It was called phthisis by Hippocrates, which meant wasting consumption. His idea was, that the pus found in the sputa of phthisical persons, was caused by mucous flowing down from the brain into the lungs, and there suppurating, corroding the lungs and thus setting up the disease. To the pent up collection of pus, or circumscribed abscesses, he gave the name of phyamata, and when they appeared in hardened masses he called them tubercules or tubercula. And thus we have four hundred years before Christ the disease described almost perfectly. About

four hundred and fifty years afterward we come to Aretæus, the Cappadocian, the most gifted of all the ancient writers. Although he makes very little improvement on the ideas of Hippocrates, yet he is wise enough to understand in the treatment of the disease, he had to depend mainly upon hygienic and dietetic measures, and some of his recommendations read as if written yesterday. For instance, he recommends the sea coast with the idea that the air there would act as a desiccant to the suppurating ulcers, and for diet he recommends the richest food possible, milk being his favorite. In a panegyric he exclaims, "milk sufficeth in place of all food, for milk is pleasant to take, is easy to drink, gives solid nourishment, and is more familiar than any other food to one from a child. In color it is pleasant to see, as a medicine it seemeth to lubricate the wind pipe, to clean as if with a feather the bronchi, and to bring off phlegm, improve the breathing and facilitate the discharge downwards. If one will only drink plenty of this he will stand in need of little else, for it is a good thing, that in a disease, milk should prove both food and medicine." How little we have improved upon the methods of this great man I will leave you to consider. After Aretæus, the contributions of ancient writers, though numerous, were of little value. I will, however, mention Galen, A. D., 140. Phthisis, with him, was an ulceration of the lung similar to ulceration of the stomach, intestines, larynx, etc. Galen showed his shrewdness, not so much in his knowledge of the disease as he did in his treatment. Ulcers of the lung were to be treated in the same manner as other ulcers. To secure siccatrization by desiccation was his chief object, so he sent his patients to Mount Vesuvius for this purpose.

But for fear you tire of my story I will make a jump of fifteen hundred years, as during this time there was little or no improvement made upon the subject.

Progress in the study of phthisis, as in all other affections, become possible only with the study of anatomy, and as that was not practiced with impunity until the seventeenth century, ideas of diseases were retarded in their growth, but since then

the growth of our knowledge of the causes and etiology of diseases has been wonderful and startling.

In 1680, Sylvius made known the fact that it is the tubercles of the lungs that break down and form the pus found in the sputa of phthisical persons. In 1700, Mangetus tells of his discovery of the miliary tubercles. In 1761, Arenbrugger introduces percussion as a means of diagnosis. In 1785, Reed showed that miliary tubercles (which had heretofore been considered as such) were not pulmonary glands. In 1802, Cullen advanced one or two new ideas connecting tuberculosis with scrofula. From 1803 to 1810, Bayle began his work. He recognized the miliary tubercle, found them in the intestine, mesentery, peritoneum, liver, spleen, kidneys, prostate, larynx and trachea. He did not look upon them as accidents or curiosities, but saw in them the same characteristics and considered them all of the same disease, a disease that was not local, (as he expresses it,) but general with local manifestations or expressions, a cachexia, a disease which he calls tuberculosis, a specific disease, independent of inflammation of whatsoever character or nature. We now have, says Bayle, on our hands not a disease of the lungs, but a general disease that may have expression in the lungs or in any other part of the body, its organs or glands.

Tuberculous phthisis then was not a disease of inflammation of the lungs, nor of pus formation therein, they may complicate it, and even precipitate a fatal termination, but do not constitute the cause. A person has tuberculosis as soon as tubercles are formed in the lungs or anywhere else. Bayle knew of no signs, however, to diagnose his tuberculosis cases until pus was expectorated, and hectic fever set in. It was left for Laennec, in 1819, to make this discovery. In his writings he describes minutely pectoriloquy, and declares that by that sign alone the evidences are certain in early stages of tuberculosis of the lungs. Laennec is very sanguine concerning the recovery of certain cases. "The cough, the dyspnœa, the purulent sputa, the hectic fever, the hemoptysis, the marasmus, in fine, all the symptoms traced out by Aretæus with such frightful fidelity, may all exist in a person, and yet they can be restored

to perfect health, if I find certain conditions of the lungs that are and can be pronounced favorable." Such were the views of the great Laennec, the father of auscultation. For twenty-five or thirty years there was very little improvement made upon these views, and athough an earlier and more intelligent diagnosis could now be made, the sufferers suffered on, and died at the same fearful rate. In 1840 cod-liver oil was introduced into the treatment of phthisis, and offered great benefits, in as much as it was a highly nutritious article, and acted like Aretæus' milk, both as a food and medicine. It has done more lasting good for the consumptive than any remedy that has yet been employed.

In 1865 Villemin adds a very important chapter to the history of tuberculosis, by proving the inoculability of the disease. Hence he concludes that tuberculosis is a specific disease, belonging among the virulent affections, and takes its place in nosology with small pox, scarlet fever, syphilis, &c. "This disease is caused," says he, "either by direct inoculation, by contagion, or by germs suspended in the air, or contained in the tuberculus matter, therefore, heredity, constitutional predisposition, avocation, catarrh, pneumonia, pleurisy, &c., are never direct causes of tuberculosis."

It was thirty-five years ago that these conclusions were reached by Villemin. Conclusions, clear and precise, presented with the force of conviction, and rendered complete in every respect by experiments with pure cultures of several series, and by control experiments with negative results, but even today they are not accepted, save by a few. Flint, in his work on Clinical Medicine, 1879, does not accept Villemin's views. Roberts' Theory and Practice, 1884, and Loomis' Text Book of Practical Medicine, same year, teach altogether a different theory. Thomas' Dictionary, 1889, gives these as the chief causes of phthisis: heredity, predisposition, acute fevers, sudden changes of the weather, bad ventilation, dampness of soil, etc.

We have now come on up, or down rather, step by step, to the last final act in this tragedy, when the blow is given that

means death and destruction to all unbelievers with thinking capacity sufficient to appreciate the truth. This last, and finishing stroke was given by Dr. Robert Koch of Berlin, by the discovery of the bacillus tuberculosis in 1882.

Within the last ten years the germ theory has become the most fashionable of all theories. This theory was first inaugurated about the middle of the last century by Linneæus, but in a crude and most unsatisfactory manner. His germs were too large, and his reasons too small; for instance, anthrax in animals was caused by a gnat, that if in swarms, could be seen in the atmosphere, and the lungs in tuberculosis was invaded by ascari of almost as huge dimensions. Linneæus had, however, the correct idea, and we have had only to get our germs down to the proper size.

About 1748, Turberill Needham made some experiments with the view of connecting spontaneous generation with the germ theory. He was followed by Buffon in 1780. One Leeunhoek had a little before this time, however, reduced the size of the germs, and had given them the general name of infusoria. Spallanzani, 1790, and Bonnet in 1795, began to give a better description of these infusoria, being aided in their research by the microscope, which came into general use about this time; for, although the simple microscope had been known for a long time, and was even sold in the shops of Athens 300 or 400 years before Christ, it was not used in scientific investigations untill the 17th century. I think that about this time Malpighi made the microscope popular by his wonderful discoveries with it. By the aid, then, of this instrument, the germs, infusoria and microbes, as they were now called, begun to get smaller and smaller. Panchet, Bernard and Cohn, now came upon the field of action—1820 to 1840. It is to the latter we owe the classification and names of this now numerous variety of germs; such names as bacteria, vibrio, sperillium, bacillus, micrococcus, etc., are familiar, no doubt, to you all. In 1860 Pasteur adds another chapter, and in 1876 Koch makes the discovery of the bacteria of splenic fever, and in 1877, of the bacillus of septicæmia, therefore,

when he discovered, in 1882, the bacillus tuberculosis he was no green hand in the business. These bacilli measure 1-7000 of an inch long, and are 1-5 of that in width; they have the appearance of a slight rod, with rounded ends; they are generally filled with little dots (spores), that look like a number of balls in a cylinder; they are generally straight, although they may be seen slightly curved, and in tissue never visible without some staining process, and as this process kills them they have never been seen to move. Koch, like Villemin, has left nothing to be desired to prove the correctness of his experiments, and the care and minute attention to detail are exact in every particular. The cultures made at the temperature of the body, on blood serum of recognized purity, are perfect, and the inoculations done with all the requisite precautions for so important a matter.

These bacilli are found in all forms of tuberculosis; in eleven cases of miliary tuberculosis in man; in twelve cases of caseous bronchitis; in one of tuberculosis of the brain; two cases of tuberculosis of the intestines; three freshly extirpated scrofulus glands; four fungus joint inflammations; ten cases of penile disease; three cases of chalky nodules in the lungs of animals; one cheesy lymph gland of the hog; three tuberculosis of the ape; seven in rabbits, and nine in guinea pigs, besides numerous others. The author then goes on to tell of his inoculations of the pure bacillus into every variety of animals of more or less numbers. This brings us down to the final statement of the author, who says: We have therefore, to deal in the future study of tuberculosis not with an indefinite mistery, but with a demonstrable parasite, whose life history is definitely known. "Our attempts at its destruction," says Koch, "are favored by the fact that it is not an outside, but a strictly inside parasite, which may be exterminated by the destruction of the sputum, disinfection of the clothing, bedding," etc., etc., and concludes by saying, "that as soon as physicians generally, recognize the fact that tuberculosis is an exquisitely infectious disease, the means of attacking it will rapidly develop themselves."

I have given you, gentlemen, a brief outline of this disease from 400 years before Christ down to the present day, with all its various metamorphoses. This is done to prove the theory that I shall declare as the cause of the great frequency of consumption among the negroes. It now becomes my duty to make a showing that will prove that the great finale, reached by Koch, is the true and ultimate one.

We will take the bacillus of Koch as the central figure, the one fixed fact in the pathology of tuberculosis, and declare that the etiology of this disease is the history of the life of this bacillus, including, of course, the favorable or unfavorable conditions for its propagation and growth. The first thing that rises up to be explained away is heredity, and so formidable is this time-worn belief that the evidence of an army of Kochs would be necessary to eradicate it from the minds of the profession, and more especially the laity. The very fact that the offspring of consumptives were most frequently diseased has been sufficient evidence. To answer this argument we go to statistics, and the evidence of different observers in thousands of cases, show that only twenty per cent. of consumptives have phthisical parents, while brothers and sisters affected amounted to nearly twice as great. For these statistics I am under obligation to Dr. James T. Whittaker, of Cincinnati, Ohio. These statistics show that association is a greater cause than heredity. For other and prima facie evidence of this fact I will give a few cases that have come under my own observation. I have a case under my care now of phthisis. The father and mother of Mr. P. are living, healthy and sound in every respect, and say there was no consumption in their respective families. Four years ago a brother of Mr. P. died of consumption, and year before last a sister followed, (she was the first brother's most faithful attendant,) and now he is in the last stages of the disease and has a younger sister that shows marked signs of tuberculosis.

Another family, the McG.'s—Mr. McG. had nearly raised his large family before he was taken sick and died of consumption, showing no evidences of the disease prior to his last sick-

ness. The children that had married and left home have shown no evidence of consumption, but those that were living at home at the time of his death have nearly all been exterminated by this disease, especially the females, who are more confined to the premises than the males. If the disease in this instance was caused by a hereditary taint, why not those who were absent involved as well as those who were at home?

Another case.—Mr. D. G. died of consumption. None of the family had ever had it. A sister who was his indefatigable nurse followed him in ten short months, and now another sister gives marked evidence of the fatal malady.

Since the discovery of the tubercle bacillus, the possibility of hereditary transmission has been denied, and the grounds taken by these authors are that as no bacilli have been found in the semen of the tuberculous male, it could not be derived from the father, and in as much as the blood of the mother does not flow directly into the fœtus but is osmosed into the placenta through the uterine membrane which, in a healthy condition, would resist the transfusion of the tubercle bacilli, if the blood contained them, which is denied. It is not believed that heredity is derived from the mother. A stronger argument in the latter is that if the fœtus is thus inoculated, why does not the liver, which is the most important organ in the fœtal circulation become the seat of the disease? This is not the case, however. The vast majority of cases show that the lungs are the first and primal point invaded, and when the fœtus is found tuberculous, it is my opinion that some one of the generative organs was primarily affected.

Accepting the teachings of Koch, the next question is invasion. In this matter we owe a great deal to Cornet, of Berlin, who has made experiments extending over two years in houses and wards of hospitals in that city. He found that the dust and scrapings from the beds and walls of the rooms of phthisical persons, when inoculated into animals, would produce tuberculosis, and for control experiments he took scrapings from houses that had never been occupied by consumptives and inoculated with negative results. He also took dust

from walls of phthisical wards where the use of sputum cups were adopted to destroy the germs in the expectorated matter, and although the sputum in these instances abounded in bacilli not a single case of these inoculations resulted in tuberculosis.

These observations confirm Koch's statements that the disease is chiefly spread by the dried sputum, being breathed with the air into the lungs, thus setting up the disease in those organs. This also furnishes convincing proof that precautionary methods, properly adopted, are perfect in their result, rendering it possible to prevent pulmonary tuberculosis altogether.

Liebermeister supports this view and cites many cases as evidence.

Barr's prison statistics, gathered from a great number of prisons in different European countries, show that the number of deaths is four times greater than those outside from tuberculosis. One-half, or fifty per cent. of deaths in these prisons is due to this disease, and this he attributes to close infected air.

Rhul, who has made some close observations, believes the idea of heredity is due to family contact, mouth to mouth, drinking cups, pocket handkerchiefs, towels, and a hundred other ways of one infecting the other, with good reasons too. This much for invasion by the lungs.. I will now speak of invasion by the alimentary canal. It is not clearly demonstrated that the milk of the tuberculous mother will infect her child by its nursing at her breast, but I would suggest the adoption of the methods laid down in our book of rules, pages 176 and 177, and to them would add that animals suspected of tuberculosis should not be used as food, nor the milk of tubercular cows drank, for statistics show that tuberculosis to a certain extent has been introduced into the system in this way. I will give a most remarkable case reported by Cogney. He says that "a consumptive who was a great lover of poultry was in the habit of visiting daily the yard where these fowls were kept, and it was observed that the chickens would eagerly seize upon his sputa; the consequence was they all had tuberculosis of the liver, and it was found necessary to destroy the whole flock."

The next question then is: Is consumption contagious? I say most certainly it is, not so much so as some, or perhaps as any one of the other contagious diseases. If it was, no doubt the whole human family would have been exterminated long since, but it is contagious, and should be dealt with as such by the profession, the laity and the government. The most instructive work as proof of this has been given by Flick, of Philadelphia, not with the view of proving the contagiousness of consumption, mind you, but it does prove it nevertheless. Flick's reports and carefully prepared maps showing the different localities, wards and houses that have been infected by scarlet fever, small pox, typhoid fever, diphtheria and consumption; that consumption, like the rest, re-appears in the same places that it had formerly rendered contagious, following faithfully the law of all contagious diseases by coming back to its own stamping ground, as it were. Tuberculosis may be introduced into the system by the skin, if there is some solution of continuity, and that coming in contact with the bacilli. For instance, it has been contracted at the dissecting table by some slight wound with the scalpel; it has been contracted in observing the rite of circumcision and other ways of like nature.

Another means of spreading this disease has been observed by Dr. Hoffman, of Dresden, through common flies. He found tubercle bacilli in flies taken from the rooms of consumptives on whose sputa they had fed, and not only in the flies themselves, but in their excrement, namely, the fly specks on the walls, all of which were used in inoculations, with tuberculosis as a result.

The wonderful tenacity of life of the bacillus tuberculosis is disheartening to researchers for a cure. Experiments have been made by Cadeac, Malet, Galtier, and others, the result of which sums up that neither drying or wetting, putrefying or pulverizing, freezing or boiling, seem to in anyway destroy their virulence, but they last under these conditions from fifty to one hundred and twenty days, and if kept in well dried sputum at a mean temperature of 77° F., will last ten months.

I have brought you thus far, gentlemen, by a winding and circuitous route, to the previous question, "Why is consumption more prevalent among negroes to-day than heretofore?"

Before the war the bacillus tuberculosis had not invaded the ranks of our blacks. This was due to their restriction. They were to a certain degree isolated; tented on neutral ground in their warm and snug cabbins, away up yonder in the nigger quarter, they never came in constant contact with the poison breathed by young "mistus" or young "marster," and perhaps would never have been, except, probably, some favorite "house servant," had it not been for their freedom. Happy, ignorant race, how blest in their security, their very isolation resulting in a most secure quarantine from this fell destroyer, for the negro race are not heirs originally to this disease, (for after a careful perusal of Stanley's travels in Africa, though I find mention of several diseases, consumption is a thing unknown). The war came, the surrender and freedom; the negro was left to his own resources, their communication with their white brother became more general, they were thrown together more frequently, labored side by side now, in the fields and in the workshops; they begun to leave the "old quarters," and live in tenement houses formerly occupied by whites. They commingled and associated daily with the lower classes, and in a hundred other ways, were exposed to the infections of tubercle bacilli, until at last, now and anon, a negro takes the consumption, and being naturally filthy in their habits, unhygenic in their manner of living, and from under the watchful care of "old marster," neglectful of cleanliness, the disease rapidly spreads among them; the bacillus tuberculosis has found a hot bed on which to feed, to grow and to fatten. This, gentlemen, tells the whole story; there can be no other cause, and proves the doctrine of Koch and Villemin greater than all other evidence here produced. There is no connection between syphilis and consumption. Bumstead has long since relegated that idea to the past with argument and proof too convincing to be disputed. No, consumption is due to a specific germ, and that germ produces tuberculosis in some form, and tuberculosis alone.

There is no doubt but that thousands come in contact and breathe into their very lungs, tubercle bacilli, who never have consumption, just as thousands go through an epidemic of yellow fever and never take it. The bacilli thus drawn into a healthy lung at an inspiration is thrown off at some more recent expiration and entirely gotten rid of. But if a lung is in an abnormal condition, rendered so by a "cold," the measles, pneumonia, an inflammatian, a fever, or from any cause, traumatic, idiopathic or congenital, and then become invaded by these bacilli in certain requisite quantities, that lung will become tuberculous, and the person will die then, or at some future time with phthisis pulmonalis.

Or again, if a lung in a high state of health, able to resist under ordinary circumstances, an invasion of the tubercle bacilli without detriment, is constantly kept in an atmosphere where such invasion is persistent, it will finally yield to the influence of the poison and become diseased—"contamination by association."

The question arises here, "are some persons more apt to take consumption than others under like circumstance, and if so, who?" I have no doubt that there are, but it is impossible to say who, for often we have known persons to live through an epidemic that we thought sure would be the first to die, and *vice versa*, therefore no one can say. It is a matter of impossibility, for the conditions and circumstances can never be the same in two separate individuals. There is no doubt that the tubercle bacilli have invaded a lung and there lain dormant for years, until some favorable train of circumstances arose and fanned them into active destructiveness. This feature of their habits has never been satisfactorily explained, yet it is true. I hope that at no great future time this peculiarity will be reasoned out scientifically.

There is no cure for consumption. Experiments of the most logical and skilful nature, by the most learned and successful men, have been made, and proven, in every instance, signal failures. The only hope for the human family, black and white, rich and poor, is *prevention.*

When the bacillus tuberculosis have, anon, established themselves, they are a fixture. Tubercles are the result, miliary at first, which soon agglomerates to form the larger variety. Now, although a lung may thus be affected, if some accident or train of circumstances does not intensify the virulence or activity of these bacilli, causation sets in, which may eventually go on to calcification of these tubercles. This is the most favorable termination of tuberculosis, for then the bacilli are totally destroyed. This often occurs, but calcification is a spontaneous evolution, and is not claimed to have ever been brought about by medical interference, and has never occurred after suppuration and ulceration had set in. When this phenomenon occurs, there is no hope; it is only a question of more or less time with the life of the individual, and it is generally *less*.

The latest thing in the way of treatment has been suggested by Dr. Weigert of Berlin, who claims that the inhalation of dry hot air will cure consumption.

This air is to be heated in a little machine of his own patent to 240° F., which can be breathed into the lungs without detriment to those organs, and with destructive effect on the tubercle bacilli.

On the other hand, Dr. Worms of Riga, recommends the inhalation of cold air. This is for the purpose of freezing them out, as it were. Neither of these gentlemen offer any evidence that their respective methods ever cured anybody, so you can take them, gentlemen, for what they are worth.

The cure for consumption is still undiscovered, and remains buried in the undeveloped; the future may bring it forth, but until it does we rest our only hope in prevention, and if that is carried out perfectly, the result will be the total annihilation of tuberculosis.

TREATMENT OF HEMORRHOIDS WITH SPECIAL REFERENCE TO OPERATIVE PROCEDURES.

BY BENJAMIN LEON WYMAN, M. D., OF BIRMINGHAM,

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What is the best and safest operative procedure for the radical cure of hemorrhoidal disease, is a question which has long engaged the attention of practical surgeons.

The recent discussions of this subject which have appeared in current medical literature, have been full of interest and would seem to indicate that the methods of our fathers have proved more or less unsatisfactory.

My object in introducing this topic is to elicit discussion upon this important subject. The changes which antiseptic surgery have wrought in surgical procedure has given us many new and excellent operations. With this advance in operative technique, the rectum has received a due share of attention. When a patient presents himself for treatment suffering with severe hemorrhoidal disease and consents to an operation, we have to decide between several methods of procedure. The advocates of the ligature and clamp and cautery operation, are almost equally divided, while some perhaps more conservative still advocate the use of carbolic acid injections, and a third class of surgeons, more progressive than the others, advocate complete excision of the mucus membrane, with the overlying tumors by the method known as Whitehead's operation.

May I ask your indulgence while I briefly attempt to discuss some eminently practical questions in this department of rectal surgery? Before proceeding, however, let us review for a moment a few salient points in the anatomy of the rectum.

The mucus membrane here does not differ materially from that found in other portions of the large intestine except in the presence of certain folds which begin at the point of union of the skin and mucus membrane and extend up the bowel three-quarters of an inch or more. Arches of mucus membrane, with their concavities upward, unite the anal extremities of these pillars and constitute the anal valves. In studying hemorrhoids, the blood supply to the rectum is of special interest to the surgeon, and particularly the arrangement and distribution of the veins. Anatomists tells us that they are of large size and entirely without valves. The blood, as it passes through the capillaries, is received into a complete net work of viens, which empty directly through the inferior mesenteric into the portal system. It is very evident from the peculiar arrangement of these viens, their dependent position and the absence of valves, we have a strong predisposing cause for hemorrhoidal disease. Among all the minor surgical ailments, perhaps there is not one which so often affects humanity as hemorrhoids, and while not dangerous to life, still the suffering and inconvenience which is occasioned renders the subject of radical cure of first importance.

We need not dwell long on the causes or the pathological condition, as it may be conceded that they are well understood. It may be stated in a general way that any condition which retards the return of blood from the rectum, and whatever induces a condition of chronic constipation may be regarded as predisposing causes. High living, especially the consumption of large quantities of nitrogenous food, free indulgence in alcoholic drinks and sedentary habits, which are so common in our modern civilization, are among the most common active causes. So long as the contents of the rectum remain of proper consistency, the pressure upon the hemorrhoidal vessels is everywhere equalized, and there is no obstruction to the return of blood. As soon, however, as the rectum becomes overloaded with hard fecal matter, we have pressure upon the venus return current, and blood stasis as a result. After a time infiltration takes place into the loose connective tissue of the parts, and finally fully developed hemorrhoidal tumors, with the usual pain and suffering which attends this condition.

Before speaking of the several methods of treatment and discussing the relative advantages of each, it may be well for us to distinguish clearly the different varieties of hemorrhoids. The old classification in the text books of external and internal piles, answers a very good purpose. We meet in practice two varieties of external piles. First, a tumor develops suddenly at the verge of the anus and indicates its presence by acute pain. These cases result from the rupture of a small external vein, the blood being poured out into the subcutaneous connective tissue. The speediest method of relief is to lay the tumor open with a bistoury and turn out the clot. Little subsequent treatment is required, as the wound soon heals. If the patient objects to the use of the knife, recourse must be had to palliative measures. A brisk cathartic should be administered, the patient placed in bed and cold compresses applied. After three or four days, if suppuration does not ensue, relief will be obtained. Those who suffer with this form of hemorrhoids should be very careful to keep the bowels open and avoid those causes which have been mentioned. The parts should be bathed frequently in cold water. It is a good astringent and anodyne and prevents the return of many hemorrhoidal difficulties. The second variety of external piles, far more common than the preceding, appear as fleshy masses or tumors around the verge of the anus. They have no relation whatever with the hemorrhoidal veins, but are composed almost entirely of skin and connective tissue. They appear to be the result of some irritation, arising from various causes at the outlet of the rectum. Ordinarily, the patient pays little attention to them. It is only when they become inflamed that advice is sought. The plan of procedure for this class of cases depends somewhat upon the size of the tumors. If the base is small they should be cut off with sharp scissors, under local anæsthesia, with cocaine. If they are large, an inch or more at the base, we have to decide between the ligature, the clamp and cautery operation, and the patient will have to keep his bed for a week. If the patient refuses any operative interference, palliative measures will have to be used. Keep the bowels

lax and apply an ointment of extract of belladonna and extract of opium, together with hot poultices. All persons who suffer with hemorrhoids should be put regularly upon a course of alkaline mineral waters, the Hunyadi and Friedricshall being among the best. There is a variety of hemorrhoids which often puzzles the practitioner. There is no well defined tumor, the disease showing itself only when the patient strains at stool. Soft, bluish, exquisitely sensitive, grape-like masses protrude. The treatment which I have usually adopted in these cases has been the injection of carbolic acid. By repeating the injections at stated intervals much benefit results. If not used too strong there is very little pain and no sloughing, and the patient can go about his business. The acid should not be used stronger than ten or fifteen per cent., the object being to produce induration without sloughing.

I have had considerable experience in the treatment of hemorrhoids by carbolic injections, and I must confess that except in the class of cases just mentioned, after an extended trial, I have almost abandoned it. The results are often disappointing, and sometimes the suffering which follows the injection is such that the patient becomes discouraged before the cure is complete. If the acid is used undiluted, necrosis of tissue almost invariably ensues, and the amount of suffering which the patient has to endure renders this plan very objectionable. Then, again, it must be remembered that the method by injection is objectionable on account of the danger of secondary results. I recall the case of a man in vigorous health who was rendered dangerously ill, and finally died with symptoms of general septic poisoning, following the injection of his hemorrhoids by a very careful and competent surgeon. With regard to the treatment of hemorrhoids located within the rectum, the cases, I think, are few, where an operation for radical cure should not be attempted. I have no faith in the use of ointments and suppositories, as they are simply palliative. The daily evacuation of the bowels, with the use of cold water, promise the best results and must be our chief reliance where an operation is not permitted. The surgeon is often puzzled

in cases of internal piles which have come down and become strangulated. Efforts at reduction produce great pain and often prove unsuccessful. There are several methods of procedure. Anoint the mass with vaseline or olive oil, and by gentle, firm pressure reduction can often be accomplished. Sometimes sloughing occurs, a means which nature takes to affect a cure. The best that can be done for these cases is to perform one of the radical operations. I recall the case of a medical friend from a neighboring town who came to me suffering very much with piles. Upon examination I found a number of large internal tumors which had come down and which he had not been able to reduce. Contrary to my judgment, but in compliance with his wishes, I injected all the tumors with pure carbolic acid. The parts in a short while became enormously swollen and oedematous, and the mass could not be returned. He returned home the same day, and after many days of suffering the tumors sloughed off and my patient made a good recovery. After this experience I decided to abandon the use of carbolic acid, especially in its undiluted form. There have been many methods proposed for the permanent cure of internal hemorrhoids. Many of them have been relegated to the history of surgery. I shall not stop to consider all the methods known to surgery, but will simply discuss those which the experience of modern surgery teaches to be best. The operations in common use at the present time are the ligature, or what is known as Allingham's operation, which combines the ligature with excision of the strangulated mass, the clamp and cautery, and lastly the new operation first introduced by Mr. Whitehead, of Manchester, England, which consists in complete excision of the mucus membrane and the closure of the wound by interrupted sutures. No method seems equally well adapted to all cases. Until the last few years the ligature has been considered the safest and best operation, and many still prefer it to all methods. Gerster, of New York, in his recent work on Antiseptic Surgery, says: "Of all operations for the cure of hemorrhoids, that by the ligature commends itself as simplest and safest." The three

operations mentioned all give the same satisfactory results in the end, that is, they produce a radical cure, but the question is, what procedure is followed by the least pain and inconvenience to the patient. Allingham's operation is the one which I have been accustomed to perform, and my results have been very satisfactory. In some cases it is true I have had my patients complain of pain for some days after the operation and some vesical disturbance. The operation is a very simple one. After anaesthetizing the patient and thoroughly paralyzing the sphincter, which should always be done in all operations on the rectum, the tumors are drawn down, and with a pair of curved scissors the mucus membrane is divided around the base of the tumor so as to produce an artificial pedicle. The tumor is then transfixed with a curved needle armed with a double ligature and tied in two portions. The tumor is then cut off with scissors, care being observed to leave enough stump to prevent the ligature from slipping. The advocates of the Whitehead method claim that the objection to the ligature is the sloughing which ensues, which means an infected wound, and this exposes the patient to the danger of septic poisoning. While it may be admitted that danger from this source may exist, still the bad results are so exceptional that the ligature may be regarded as a practically safe and efficient operation, and possessing many advantages over the elaborate dissection recommended by Mr. Whitehead. On account of the dissatisfaction on the part of some surgeons with the ligature, the clamp operation came into use and has its stoutest advocate in Dr. Kelsey, of New York. I have had no experience with this operation. Kelsey, in comparing the relative merits of the ligature and clamp operation, says: "The relative advantages are to be judged from several standpoints. First, in the amount of pain which the patient has to endure after the operation. In the ligature this is sometimes severe, demanding the constant exhibition of morphine for a week, and the presence of the ligature surrounding more or less living tissue and probably nerve filaments offer sufficient explanation. With the clamp and cautery exactly the opposite has come to

be the rule. In this there is no foreign body left to act as a source of irritation and muscular spasm. The pedicle is first crushed and then cauterized to a dead, insensible mass, and all that is left is the charred stump." It now remains to mention in conclusion, the latest operation, that of cure by excision. Whitehead's plan is by a clean dissection to remove the mucus membrane as high up as the internal sphincter. He claims that his method of dissection is easy and safe, and that the hemorrhage is not excessive and can be readily controlled by torsion, and that a rapid cure results in a few days. Mr. Whitehead describes his method in the following language: "By the use of scissors and dissecting forceps, the mucus membrane is divided at its juncture with the skin around the entire circumference of the bowel, every irregularity of the skin being carefully followed. The external and commencement of the internal sphincters are then exposed by a rapid dissection, and the mucus membrane and attached hemorrhoids, thus separated from the sub-mucus bed on which they rested, are pulled bodily down, any individual points of resistance being snipped across and the hemorrhoids brought below the skin. The mucus membrane above the hemorrhoids is now divided transversely in successive stages, and the free margin of the severed membrane above is attached, as soon as divided, to the free margin of the skin below, by a suitable number of sutures. The complete ring of piles bearing mucus membrane is thus removed." I have had no experience with this operation, but it seems to me the most scientific and rational method which has yet been proposed. The most serious objection which I can see to this operation is the great difficulty which would be met in making the elaborate dissection recommended, and also the hemorrhage, which is almost sure to follow it. Mr. Whitehead, on the contrary, says that the hemorrhage is never excessive, and that the operation can be safely performed in ten minutes by any surgeon of ordinary skill and intelligence. Robert F. Weir, of New York, reports six cases operated on by the Whitehead method, and in comparing his results with those following the use of the ligature, finds that in the Whitehead method the recovery is more rapid and the reaction shown

by pain and difficulty in urination is less. He shows, however, that it is a difficult matter in some cases to dissect up the mucus membrane from the protruding pile, as the hemorrhoid involves both mucus and sub-mucus tissue.

In conclusion, the following propositions may be stated as representing the present status of the operative treatment of hemorrhoids:

1st. The operation by the ligature commends itself on account of its simplicity and safety, and in the great majority of cases is followed by a radical cure.

2d. The method by carbolic acid injections is uncertain, tedious and often disappointing in its results. If used at all, the strength of the solution should not exceed ten or fifteen per cent.

3d. The Whitehead method is the most rational and scientific, and is indicated in those severe cases of disease which involve the whole circumference of the anus.

The next Annual Meeting of the Medical Association of the State of Alabama, will be held in the city of Huntsville on the second Tuesday in April, 1891, at 12 o'clock noon, and continuing four days.

Each county is entitled to send TWO delegates. The assessment upon the County Societies is ONE DOLLAR for each member, exclusive of Counsellors and Delegates, the former of whom pay A FEE OF TEN DOLLARS and the latter FIVE DOLLARS. Further particulars will be found in the Annual Circular Letter of the Secretary, to be issued March 1st, 1891.

INDEX.

PAGE

PUBLISHING COMMITTEE 3

MINUTES OF THE PROCEEDINGS—First day 7

Grand Senior Consellors 7

Senior Consellors; Junior Consellors 8

Delegates 9

Health officers; members of county societies visiting 11

Fraternal messengers; summary 12

Address of Welcome—Banks 13

Johnston 15

Annual Message of the President—Franklin 17–33

Work of the Association 20

Objects 23

Collection of vital statistics 26

Sanitary drainage 27

Meteorology 29

Report of the Senior Vice-President—Cross 34–39

Junior Vice-President—Bragg 40–43

Secretary 44–50

Correspondence 45–48

Publishing Committee 49

Treasurer 51

Schedule of Special Committees 58

Evening session 60

PROCEEDINGS OF THE SECOND DAY 62

Excursion to Pratt Mines 62

Schedule of Regular Reporters 63

Volunteer Papers 64

Evening Session 65

PROCEEDINGS OF THE THIRD DAY; Evening Session 67

PROCEEDINGS OF THE FOURTH DAY; Vote of thanks 68

Seventeenth Annual Report of the Board of Censors 69–130

PART I—Report of the Board of Censors. Work of the Association. 70

President's Message 71

Reports of the Vice-Presidents 73

Report of the Secretary and Book of the Rules 75

Publishing Committee 75

Treasurer and Book of Accounts 75

PROCEEDINGS OF THE FOURTH DAY—CONTINUED PAGE
Roll of the Correspondents; delinquent Counties..... 76
Report of the Committee on Doctors' Home..... 76
Library and Museum..... 77
Committee on Contract Practice..... 77
Revision of the Minutes of 1889..... 79
Case of Dr. W. C. Cross..... 80
New edition of the Book of the Rules..... 81
Amendments to the Constitution..... 82
Section Four Thousand and Seventy-eight of the Code... 83
Brooks v. the State..... 84
Association Banquets..... 89
Ordinance Regulating Banquets..... 90
Neglect of Duty by the Officers of County Societies..... 90
Medical Ethics..... 92
PART II—Report of the Medical Examiners; specimen questions.. 93
Preliminary Examination of Medical Students..... 95
Statement of dollar dues for examination papers; case of Dr. Fowler..... 96
Work of the County Board of Medical Examiners.....97–108
PART III—Report of the State Board of Health..... 108
Expenditures.....109–112
Note by the State Health Officer; Establishment of Licensed Grave-yards..... 112
Education of Midwives..... 114
Ordinance for the Examination of Midwives..... 115
Work of the County Boards of Health.....116–124
PART IV—Supplementary Papers; Inter-State Quarantine Law.... 124
An Act..... 125
Action of the Association on the Report of the Board of Censors..... 127
The Revision of the Book of the Rolls..... 131
Installation of President and Vice-Presidents..... 134
The Book of the Rolls.....137–205
Roll of Counsellors by Congressional Districts..... 209
Roll of Correspondents; Roll of Officers..... 213
Schedule of Regular Reporters..... 214
Special Committees..... 215
Annual Sessions..... 215
Orators..... 116
Obituary Record..... 217
THE APPENDIX OF MEDICAL AND SANITARY DISSERTIONS AND REPORTS..... 219
Annual Oration—Inge.....221–231
Quack Doctors..... 224

THE APPENDIX OF MEDICAL AND SANITARY DISSERTATIONS AND REPORTS—CONTINUED. PAGE

Headache and Neuralgia the Result of Refractive Errors—Baldwin 232
Myopia 235
Astigmatism 236
Dr. Emmet L. Jones 242
Dr. Samuel L. Ledbetter 243
Dr. John E. Purdon 244
Dr. Lewis G. Woodson 245
Treatment of General and Local Peritonitis—Davis 247-262
Dr. Erasmas Taylor Camp 262
Early Treatment of Congenital Club Foot—Hogan 264-270
Anteseptics in Surgeory—Robinson 271-275
Practical Relation of the Physician to Life Insurance—Sholl 276-285
Some Observations Made During a Trip Abroad—Thomas 286-300
Therapeutics of the Endometrium—Watkins 301-310
Modern Therapeutics—Wilkinson 311-318
Therapeutic Value of Phenacetine—Ayers 319-324
Ovariotomy by McDowell's Incision in Alabama—Bozeman 325-342
Continued fevers of Alabama 343-352
Tuberculosis as an Infectious Bacilliary Disease—Hudson 353-374
Placenta Prævia—Hunter 375-380
Some Remarks on Rheumatism in Infant Life—Jordan 381-389
Corneal Ulcers and their Treatment—Ledbetter 390-399
Multiple Neuritis—Marechal 400-414
Treatment of Organic Stricture of the Urethra—Morris 415
Simple Dilatation 415
Rapid Dilatation 416
Internal Urethrotomy 416
External Urethrotomy 417
Physical Research and Practical Medicine—Purdon 419-432
Tuberculosis—Stewart 433-446
Treatment of Hemorrhoids with Special Reference to Operative Procedures—Wyman 447-454

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